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ABSTRACT

The New Jersey College Basic Skills Placement Test was administered to 42,984 freshmen entering New Jersey colleges and universities and four independent colleges in the fall of 1978 in order to assess students' specific strengths and weaknesses in reading, writing, and mathematics for placement in appropriate first-year courses. Based on test results, the following conclusions were reached: (1) a substantial proportion of entering freshmen were not adequately prepared in the basic subjects to succeed in college-level work; (2) the problem of basic skills deficiencies was present at all two-year and four-year colleges; and (3) of the students tested, the majority had studied high school English and mathematics for at least three years. Although some colleges did not test all entering freshmen, especially part-time students, the authors believe that if more students had been tested, the proportion showing a need for remediation would have been even higher. (Test score results are appended). (MH)

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Report to the Board of Higher Education on the Results of the New Jersey College Basic Skills Placement Testing, May 1, 1978 - September 28, 1978

NEW JERSEY BASIC SKILLS COUNCIL

November 17, 1978

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SUMMARY

In this report, the Basic Skills Council presents the results of the New Jersey College Basic Skills Placement Test which was administered to 42,984 freshmen entering New Jersey public colleges and universities and four independent colleges in the fall of 1978. The data contained in this report support the following conclusions:

1. A substantial proportion of the students entering colleges in New Jersey are not adequately prepared in the basic skills of reading, writing, and mathematics and are thereby hindered from doing college-level work in a broad variety of disciplines.

2. The problem of basic skills deficiencies is present at all colleges, both two-year and four-year. No college escapes the need to provide remedial/developmental instruction in reading, writing, and mathematics.

3. Of the students tested, the great majority received three or more years of instruction in English and mathematics in high school, and 76% graduated from high school in the last two years. Apparently, the level of proficiency required to complete these high school courses successfully is considerably lower than the proficiency expected of entering college freshmen.

   ---93% of the students tested studied English for three or more years in high school;

   ---71% studied mathematics for three or more years in high school;

   ---92% consider themselves average or above in written expression ability;

   ---84% consider themselves average or above in mathematical ability;

   and yet,

   ---39% of the students tested achieved scores that indicate deficiencies in reading;

   ---43% achieved scores that indicate deficiencies in writing;

   ---45% achieved scores that indicate deficiencies in arithmetic;

   ---57% achieved scores that indicate deficiencies in elementary algebra.

The data presented here are incomplete in that some colleges did not test all their entering freshmen, particularly their entering part-time freshmen. There is reason to believe that if more students were tested the proportion identified as needing some kind of remediation would be even higher.

The Council believes that a careful study of the data leads to the inescapable conclusion that thousands of students are graduating from high school and enrolling in college only to find that they do not possess the basic skills required for success in college, skills that in many instances they were led to believe they had.

This progress report summarizes the results of the testing of students entering colleges in the fall of 1978. At a later date, the Council will submit a report on the placement of students, the extent of the remedial/developmental effort that is required of New Jersey colleges, and the Council's recommendations on what can be done to improve the remedial/developmental efforts at New Jersey institutions of higher education.

INTRODUCTION

It has been scarcely twenty months since the New Jersey Basic Skills Council was created by the Board of Higher Education and thirteen months since the Board approved the testing program recommended by the Council. In that period of time a statewide testing program in reading, writing, and mathematics was constructed and the test was administered to 42,984 freshmen who entered college this past fall. The results are not encouraging.

In presenting this report, the Council is fulfilling its mandated responsibility to lay before the Board and the people of New Jersey the facts about the basic skills preparation of students entering colleges in this State. We do so in the conviction that unambiguous, objective evidence rather than vague feelings or personal impressions should stimulate corrective action, not only on the part of schools and colleges, teachers and professors, but also on the part of parents and students.

There are some who would argue that a statewide testing program is unnecessary, that we all know that underpreparation in basic skills is a problem, and that testing is a waste of resources since it does not solve the problem. Ironically, some of these are the same individuals who only a brief while ago were assuring the world that students are coming to college better educated than ever before, and that corrective action would not only be unnecessary but also detrimental to educational "progress."

Much of the controversy surrounding the notion of basic skills testing stems from the absence of a common understanding of what is meant by the term "basic skills." Some tests and testing programs use a similar title to describe "life skills" or "coping skills" -- a group of practical proficiencies considered essential to survival in contemporary society (e.g. reading a bus schedule, balancing a check book, filling out an insurance form). Others are essentially intelligence tests or aptitude tests which may possess a general predictive validity but do not attempt to measure ability to perform certain specific skills. From the outset, the Council has stated that its use of the term "basic skills" refers to those skills of thought and communication without which an individual cannot take advantage of the opportunities offered by a college education. In a report to the Board dated October 31, 1977 we said:

> By 'basic skills' the Council means the tools of intellectual discourse used in common by participating members of all academic communities. These tools are the language of words and the language of mathematics. Students need these tools to extract information, to exercise and develop the critical faculties of the mind, and to express thoughts clearly and coherently. Without them learning is impaired, communication is imprecise, understanding

is impossible. A test of 'basic skills,' therefore, is a test to determine whether an individual has developed the practical working skills of verbal and mathematical literacy needed to take advantage of the learning opportunities that colleges provide.

To define 'basic skills' in this way is not to deny the validity of other modes of communication -- within the artistic realm of discourse, for instance, the languages of music, motion, image, color, light, texture express a universe of perceptions, feelings, and emotions which cannot be expressed adequately by words and numbers and logic alone. Nor is the Council's definition of the 'basic skills' inimical to the value of diversity. We are, to the contrary, exceedingly sensitive to the differences between colleges: differences in their students, differences in their curricula and pedagogical philosophies, differences in their missions. But in one respect all colleges are identical: their ultimate purpose is to foster learning. The Council asserts unequivocally that the 'basic skills' of reading, writing, and mathematics are a prerequisite to learning at the college level. If the possession of these skills is 'standardization,' we believe that standardization in this sense is good.

There is no longer room for confusion or uncertainty on one point: an unacceptably large proportion of the students currently entering New Jersey colleges cannot read, or write, or think in mathematical terms at levels that, **without remediation**, will permit them to benefit from the intellectual stimulation that college offers.

We would agree readily with those who argue that it would be unwise to teach basic skills for their own sake and to the exclusion of all other knowledge. However, we cannot accept the inference that the teaching of basic skills excludes other kinds of knowledge and experience. Indeed, it seems to us both unwise and unjust to tolerate with complacency the limitation of intellectual growth entailed by failing to develop linguistic and mathematical skills in large numbers of students. It seems grossly unfair, therefore, to tar all efforts to improve these skills with the brush of reactionary traditionalism. Certainly the fundamentals of reading, writing, and mathematics are merely means to greater ends. But they are necessary means. Without the essential tools - clarity of thought and expression - no man or woman can aspire to exercise the mind to its fullest potential, nor even to address adequately questions of fact and interpretation and value. Who can believe that a person is truly free who bears the shackles of limited literacy? We are convinced that no other educational issue surpasses the importance of this one for the welfare of our society and of the individuals who comprise it.

Furthermore, we believe that the testing program, far from being a waste of precious resources, can contribute substantially to students' potential for success in college. We know of no better way to help students succeed than to begin by identifying those who need special assistance and placing them in courses consistent with their skills, often remedial/developmental programs specifically designed to improve their skills in reading, writing, or mathematics. We know that many New Jersey colleges have successfully used the results of the New Jersey College Basic Skills Placement Test to place students in appropriate courses. We believe that this testing program is an essential ingredient of New Jersey's policy of open access to our system of higher education if that policy is to present a real opportunity for self-improvement and upward mobility rather than a revolving door to repeated failures or a continuation of the cruel hoax perpetrated by the practice of social promotion. Colleges can and should continue to admit a broad range of students while at the same time maintaining appropriate academic standards.

Finally, the Council wishes to emphasize its conviction that remedial instruction in basic skills, however important and necessary under present circumstances, should not forever remain a major responsibility of colleges and universities. We believe that basic skills are best learned at an early age; we have faith in the ability and creativity of most teachers; we think that they can and will do the job once the community makes it clear that the job needs doing.

PURPOSES OF THE TEST

It is important to understand what the New Jersey College Basic Skills Placement Test (NJCBSPT) is designed to do, and what it will not do. The test was designed to answer the question whether students have developed those fundamental skills which they will need in order to participate effectively in a collegiate program. The test provides information on students' specific strengths and weaknesses in the basic skills of reading, writing, and mathematics. This information assists colleges in placing students in appropriate first-year courses; at the same time it assists the colleges in designing remedial programs carefully tailored to the needs of their students. The test results also provide colleges and high schools with the data needed to begin to build programs of articulation whereby they can work together more effectively to strengthen the entire educational system.

The test is <u>not</u> an admissions test; it is not used in making admissions decisions. Indeed, by resolution of the Board of Higher Education, the test can be administered only <u>after</u> students have been admitted to the college of their choice. Nor is the test an aptitude test, an intelligence test, or a predictor of success in college. The test is an assessment of skills proficiencies; the results should be used only for the purposes of counseling, placement, and curriculum development.

The NJCBSPT is unlike most other standardized tests. Because it is intended to indicate whether a student can enter college classes without a severe handicap in reading, writing, or mathematics, the test is designed to discriminate best at the lower end of the score range. Moreover, it was constructed at a difficulty level judged by experienced New Jersey faculty members and testing experts to be appropriate for the purpose of identifying students who probably need remedial/developmental assistance. The test does not attempt to rank students with good to excellent skills proficiencies, but merely identifies them as a group separate from students with weak to poor skills proficiencies.

DESCRIPTION OF THE NEW JERSEY COLLEGE BASIC SKILLS PLACEMENT TEST

Reading and Writing Test

The reading and writing test is an adaptation of a new test, most of which was originally developed for use in the California State University and College System. In cooperation with the College Entrance Examination Board, the Council modified the test to meet the particular needs of the New Jersey testing program. During December of 1977, over 10,000 copies of the reading and writing test were pilot tested at sixteen New Jersey two- and four-year colleges. The results were carefully analyzed by the Council itself, by the Council's Reading and Writing Advisory Committee, by its Test and Measurement Advisory Committee, and by the professional staff of the Educational Testing Service. As a result of this careful review, weak, misleading, or inappropriate items were deleted. The final version of the test used in the statewide testing program is one that, in the judgement of all who worked on its development, assesses the proficiencies of entering college freshmen in the basic skills of reading and writing, and can help to determine whether they will profit from placement in courses designed to strengthen these skills.

The reading and writing test comprises three multiple-choice sections and a student-written essay on an assigned topic. The first multiple-choice section contains forty items consisting of a series of short reading passages on which test questions are based. In addition to providing a scaled score for Reading Comprehension, this section also provides descriptive-cluster scores on the student's ability to understand main ideas, comprehend direct statements, and draw inferences. (Descriptive-clusters are groups of questions within each section designed to measure a particular aspect of the skill the whole section measures. Descriptive-cluster scores are reported as raw scores, i.e. the number right.) The second multiple-choice section consists of thirty-five items which measure a student's ability to write sentences that meet the requirements of standard written English and conform to the traditional conception of what a written sentence is. In addition to a scaled score for Sentence Structure, this section also provides descriptive-cluster scores on the student's ability to use complete sentences, use coordination and subordination appropriately, and place modifiers appropriately. The final multiple-choice section on reading and writing consists of fifty items which are designed to measure the student's ability to see relationships between words, between sentences, and between ideas. This ability is required of both the good reader and the good writer. In addition to providing a scaled score on Logical Relationships, this section also provides descriptive-cluster scores on the student's ability to categorize ideas, use appropriate connectives, make analogies, and recognize principles of organization. The Essay section of the test asks the student to write a twenty-minute essay on an assigned topic which the student has not seen previously. The essay is scored holistically; each essay is read by at least two different readers. The score reported as the Essay score is a raw score that is derived by adding the two readers' scores together.

The Mathematics Test

The mathematics test is a new test developed by the Council in cooperation with the College Entrance Examination Board. During December, 1977, items for possible inclusion were pre-tested at two- and four-year colleges across the State. The results were carefully analyzed by the Council, its Mathematics Advisory Committee, its Test and Measurement Advisory Committee, and the professional staff of the Educational Testing Service. As a result of this review, a test was constructed and used in the statewide testing program. In the judgement of those who developed it, this test is well designed to assess the level of proficiency in basic computational skills and elementary algebra of students entering college, and will clearly identify students who would need assistance if called upon to use the basic skills and concepts of computation and elementary algebra. The test does not attempt to measure mathematical skills more advanced than the fundamentals of elementary algebra.

The mathematics portion of the test consists of a thirty item section on Computation and a thirty item section on Elementary Algebra. It provides raw scores (the number correct) and scaled scores for Computation and Elementary Algebra, but does not provide descriptive-cluster scores for specific skills. Instead, the score reporting format provides the student's response to each item on the mathematics section so that the college may evaluate the student's mathematical skills based upon an analysis of the student's responses to particular items as well as total scores.

RESULTS OF THE TESTING PROGRAM

May 1, 1978-September 28, 1978

Profile of Students Tested

For the first semester of the academic year 1978-79, 42,984 entering freshmen were tested at all the public two-year colleges, all the state colleges, eleven undergraduate units of Rutgers University, and the New Jersey Institute of Technology. Four independent colleges also participated in the testing program; the data on the 742 students from these colleges are included in the statewide totals, but are not reported as a separate sector. The students tested include both those who were regularly admitted and those who were admitted through special admission programs.

Of the students tested:

---86% indicated they would enroll as full-time students;

---14% indicated they would enroll as part-time students;

---67% graduated from high school in 1978;

---28% graduated from high school before 1978;

--- 3% did not graduate from high school;

---93% studied English for three or more years in high school;

---71% studied mathematics for three or more years in high school;

--- 6% considered themselves below average in written expression ability in comparison with others in their age group;

---44% considered themselves average in written expression;

---48% considered themselves above average in written expression;

---14% considered themselves below average in mathematical ability in comparison with others in their age group;

---45% considered themselves average in mathematical ability;

---39% considered themselves above average in mathematical ability.

Appendix C summarizes the profile data aggregated both by college sector and statewide.

Summary of the Data

Except for the Essay score, which is reported as the sum of the readers' scores, all scores on the NJCBSPT are reported as scaled scores. The score scale runs from 35 to 95, with a mean of 65 and a standard deviation of 10. The Council chose this particular scale because its numerical range is different from that used for reporting scores on any other test. Reporting the test results as scaled scores ensures that the scores will be comparable from year to year. Thus, the way in which test results are reported will not vary each year because of the form of the test or because of the composition of the group of students tested each year. The Board and the Council will have comparable baseline data for each year of testing. A more detailed discussion of the NJCBSPT scale is contained in Appendix A.

The table on page 9 presents the test data for each sector of the higher education system and a statewide summary covering all students tested. When examining the results, it must be remembered that the sectors have widely varying academic missions and that individual colleges have different standards for admission. Thus the test results should, and do, reveal differences among sectors.

These data are summaries based upon the performance of all students in each sector who took the test. As such they indicate nothing about specific strengths and weaknesses of individual students within a sector. However, Appendices E-BB, which give the distribution of scores on each section of the test, do indicate certain distinctions among the sectors. Students entering NJIT achieved the highest mean scores in computation and elementary algebra, while students entering Rutgers University achieved the highest mean scores in the verbal sections of the test. However, as Appendices E-BB illustrate, substantial numbers of individual students in both institutions achieved scores below the statewide mean in these areas. Students entering the state colleges achieved the next highest mean scores on the verbal and mathematical sections of the test. Although the students entering the community colleges achieved mean scores well below the statewide means, it should be noted that substantial numbers of individual students entering these colleges achieved scores above the statewide mean.

Institutional Interpretation of Test Scores

In order to understand better what the test results mean, perhaps it would be useful to know how some colleges have been using the test results to place students in remedial/developmental courses. The scores which decide whether students are placed into remedial/developmental courses (often called cut-off scores) can only be chosen by the faculty at each institution. The cut-off scores determined by the faculty of a college should be appropriate to the curriculum of the college and the academic standards which students are expected to achieve. Therefore, the scores used to place students in remedial/developmental courses will differ among colleges.

MEAN RAW AND SCALED SCORES

	Two-Year Colleges		State Colleges		NJIT		Rutgers University		State	
	Mean Raw Score	Mean Scaled Score	Mean Raw Score	Mean Scaled Score	Mean Raw Score	Mean Scaled Score	Mean Raw Score	Mean Scaled Score	Mean Raw Score	Mean Scaled Score
Reading Comprehension (40 items)	29	62	31	66	34	69	34	70	31	65
Sentence Structure (35 items)	23	51	26	66	27	69	28	70	25	64
Logical Relationships (50 items)	37	62	40	66	42	69	43	70	39	65
Essay (0-8)	4.8	4.8	5.3	5.3	5.3	5.3	5.7	5.7	5.1	5.1
Composition (Scaled Score Only)		61		66		68		71		64
Total English (Scaled Score Only)		61		66		69		71		64
Computation (30 items)	19	60	22	66	27	74	25	71	21	64
Elementary Algebra (30 items)	11	61	15	67	24	79	20	74	14	65
	(N=23,390)		(N=10,840)		(N=690)		(N=7,322)		(N=42,984)	

For example, a two-year college that tested over 1,700 students determined that students who achieved a scaled score below 63 in Composition would be placed in remedial writing courses. Those who scored below a scaled score of 65 (30 or fewer correct answers) in Reading Comprehension were placed in remedial reading, and those scoring below a scaled score of 54 (15 or fewer correct answers) in Computation were placed in a remedial mathematics course, as were students scoring below a scaled score of 64 (12 or fewer correct answers) on the Elementary Algebra section. At this particular college, 52% of the students tested were placed in remedial writing, 43% in remedial reading, and 78% in remedial mathematics.

A four-year college that tested over 1,300 students determined that students who received a score of four or below on the essay would be placed in remedial writing, while those who failed to answer correctly at least 100 of the 125 items in the three multiple-choice sections covering Reading Comprehension, Sentence Structure, and Logical Relationships would be placed in remedial reading. Those who failed to answer correctly at least forty-two of the sixty items on the two mathematics sections would be placed in remedial mathematics. At this college, 38% of the students tested were placed in remedial writing, 32% in remedial reading, and 40% in remedial mathematics.

Another four-year college tested over 1,000 students and determined that students who received a score of five or below on the essay and had a raw score of 40 or below on Logical Relationships would be placed in remedial writing. Those who received a score of four or below on the essay and had a raw score of seventy-three or less on the combined Reading Comprehension and Logical Relationships sections of the test would be placed in remedial reading. Those who achieved a raw score less than twenty-one on Computation, or a raw score less than twenty-two on Computation and less than nine on Elementary Algebra would be placed in remedial mathematics. This college placed 32% of the students tested in remedial writing, 33% in remedial reading, and 34% in remedial mathematics.

Another two-year college that tested over 2,500 students determined that students who achieved a raw score below twenty on Sentence Structure or a raw score of thirty-four or below on Logical Relationships would be placed in remedial writing. Those whose raw score was twenty-seven or less on Reading Comprehension would be placed in remedial reading. Those students whose raw score was seventeen or less on Computation were placed in remedial mathematics. This college does not require mandatory placement for algebra; therefore, no cut-off scores for this portion of the test were determined. At this college 32% of the students tested were placed in remedial writing, 29% in remedial reading, and 40% in remedial mathematics.

INTERPRETING THE RESULTS OF THE TESTING PROGRAM

Based upon its understanding of the content and difficulty level of the test, the Council offers the following general propositions to assist in understanding the test data presented in this report.

Reading and Writing Test

Students whose general test scores (Composition and Total English) are above a scaled score of 65 probably possess an adequate grasp of those basic verbal skills necessary for success in regular first-year college-level courses. Those students who achieve general test scores below a scaled score of 65 may be deficient in one or more areas of verbal skills. For these students, the specific test scores in Reading Comprehension, Sentence Structure, and Logical Relationships may reveal the area and extent of the deficiency. Scaled scores below 65 in one or more of these areas indicate the verbal skills which probably should be strengthened before undertaking regular college level work. For example, students who achieve a scaled score below 65 (fewer than 25 questions correct out of 35) on the Sentence Structure section of the test probably need special assistance in learning to develop sentences, while students who score below a scaled score of 65 (fewer than 39 questions correct out of 50) on the Logical Relationships section of the test probably need special assistance in arranging ideas logically in their writing and in organizing those ideas into unified paragraphs.

Mathematics Test

Students whose Computation score falls below a scaled score of 65 (21 questions correct out of 30) probably need remediation in arithmetic. A scaled score of 65 or below (14 or fewer questions correct) on the Elementary Algebra section of the test indicates that a student probably lacks a fundamental grasp of elementary algebra. A scaled score between 66 and 80 (15 to 24 questions correct) seems to indicate that a student has some knowledge of elementary algebra but still might benefit from special assistance in this area. A scaled score of 81 or above (25 or more questions correct) seems to indicate that a student possesses an adequate grasp of the fundamental principles of elementary algebra.

Need for Remediation

These generalizations about the scores, along with the placement procedures used by some colleges and discussed above, are intended to help the Board to interpret the meaning of the aggregated test results. As the graphs and tables in Appendices E-BB of this report show, there is a significant need for remediation among entering college freshmen, whether we apply the standards actually used by colleges, or whether we apply the general interpretation outlined above.

The frequency distribution tables in Appendices E-L reveal the number of students who would need remedial help if the scaled score of 65 were applied as a cut-off score. In looking at the distributions for the Total English score, we find that of 42,984 students tested, a total of 17,897 students or 42% scored below a scaled score of 65. Using the Composition score as a cross check, we find that 18,358 students or 43% scored below a scaled score of 65. On the Reading Comprehension section, 16,764 students or 39% scored below a scaled score of 65. On the Sentence Structure section, 17,682 students or 41% scored below a scaled score of 65, which indicates that they probably need special assistance in learning how to write a sentence. Of the 42,821 students who completed the Computation section, 19,194 or 45% scored below a scaled score of 65. And of the 38,837 students who attempted the Elementary Algebra section, 20,231 or 52% scored below a scaled score of 65. In looking at the number of students who scored below a scaled score of 65 in Computation and Elementary Algebra, it is important to note that a total of 163 students did not attempt the Computation section, and 4,147 did not attempt the Elementary Algebra section. These students probably could also benefit from some kind of special assistance in mathematics.

Appendix D summarizes the need for remediation and assumes a cut-off score of 65 on the Reading Comprehension, Sentence Structure, Logical Relationships, Composition, Total English, Computation, and Elementary Algebra sections of the NJCBSPT.

HIGH SCHOOL SCORE REPORTS

As required by the Board of Higher Education resolution of October 21, 1977, the Council will aggregate scores on the NJCBSPT according to each high school from which twenty-five or more graduates took the test. Once these data have been aggregated and formated, they will be reported.

The Council understands that there is considerable concern on the part of the education community about how these data will be presented and how they will be used. The Council shares this concern, for we too intend that these data be used constructively for the benefit of students and that they not be misused for other purposes. The Council strongly urges that the data be presented to appropriate school officials and local school boards. We believe that the information provided by these data can be extraordinarily useful to schools in examining their curricula, and in a variety of other ways to strengthen their students' proficiencies in basic skills. These data can also provide the basis for articulation between the high schools and the colleges so that they may begin cooperative efforts to address earlier the instructional needs of students, and we recommend that such articulation efforts be undertaken expeditiously. We hope that the Department of Higher Education and the Department of Education will come to an agreement on how these data can best be used so that all components of the State's education system can work together effectively.

CONCERNS OF THE COUNCIL

As noted earlier in this report, 42,984 students were tested as part of the Basic Skills Assessment Program. While this is a significant number of students, it falls short of the enrollment of first-time freshmen entering New Jersey public colleges for the 1978-79 academic year. Some colleges failed to test significant numbers of first-time freshmen, despite reminders from the Council of their responsibility to do so pursuant to the Board of Higher Education resolutions of March 18, 1977 and October 21, 1977.

Appendix CC lists the number of freshmen admitted by each college in the fall of 1977. Final enrollment figures for 1978 are not yet available; however, we have been informed that these figures will show few substantial changes in fall enrollments between 1977 and 1978. Hence the comparison between the number of freshmen admitted in 1977 and the number of students tested in 1978 appears to be an adequate indicator of which colleges are fulfilling the Board's mandate to test all entering freshmen and which are not.

A particular problem which has come to light is the incomplete testing of part-time students. Of the total number of students tested, only 13% were part-time students, yet 45% of the freshman enrollment at all colleges consists of part-time students. Less than 30% of the part-time freshman students entering the two-year colleges were tested, and less than 20% of the part-time freshman students entering the state colleges were tested (see Appendix DD). While the Council has exempted from testing the so-called casual student - the student who enrolls for only one course and has no intention of pursuing a degree program - many part-time students are pursuing degree programs. Such students should be accorded the same services as full-time students, especially placement testing and the opportunity to remedy basic skills deficiencies. The Council is most concerned that large numbers of part-time students are not being tested, which means that they are being denied the opportunity to identify and correct basic skills deficiencies. The colleges must begin to meet the needs of part-time students who intend to pursue a regular academic program.

Finally, the Council wishes to encourage more of the independent colleges to participate in the testing program. By participating in the program, many of the independent colleges would be in a better position to assess the needs of their students and to play an important role in the statewide attack on basic skills deficiencies among entering college freshmen. We believe that a significant opportunity is being overlooked by these institutions.

APPENDICES

A NJCBSPT Score Scale

B Some Testing Terms

C Summary of Student Background Information

D Number of Students Not Achieving A Scaled Score of 65

E Frequency of Scaled Score Intervals for Reading Comprehension

F Frequency of Scaled Score Intervals for Sentence Structure

G Frequency of Scaled Score Intervals for Logical Relationships

H Frequency of Essay Scores

I Frequency of Scaled Score Intervals for Composition

J Frequency of Scaled Score Intervals for Total English

K Frequency of Scaled Score Intervals for Computation

L Frequency of Scaled Score Intervals for Elementary Algebra

M Percentage of Scaled Score Intervals by Sector for Reading Comprehension

N Percentage of Scaled Score Intervals by Sector for Sentence Structure

O Percentage of Scaled Score Intervals by Sector for Logical Relationships

P Percentage of Raw Score Intervals by Sector for the Essay

Q Percentage of Scaled Score Intervals by Sector for Composition

R Percentage of Scaled Score Intervals by Sector for Total English

S Percentage of Scaled Score Intervals by Sector for Computation

T Percentage of Scaled Score Intervals by Sector for Elementary Algebra

U Cumulative Percentage of Scaled Score Intervals by Sector for Reading Comprehension

V Cumulative Percentage of Scaled Score Intervals by Sector for Sentence Structure

W Cumulative Percentage of Scaled Score Intervals by Sector for Logical Relationships

X Cumulative Percentage of Raw Score Intervals by Sector for the Essay

Y Cumulative Percentage of Scaled Score Intervals by Sector for Composition

Z Cumulative Percentage of Scaled Score Intervals by Sector for Total English

AA Cumulative Percentage of Scaled Score Intervals by Sector for Computation

BB Cumulative Percentage of Scaled Score Intervals by Sector for Elementary Algebra

CC Number of Students Admitted for Fall, 1977 and Number of Students Tested for Fall, 1978

DD Percentage of Students Tested in All Sectors

New Jersey College Basic Skills Placement Test Score Scale

Scores on the NJCBSPT are reported on a scale which runs from 35 to 95, with a mean of 65 and a standard deviation of 10. This is a unique scale chosen by the Council because it is not used for reporting the scores on any other test. The Council chose to report the test scores as scaled scores for three reasons. First, since different sections of the test have different numbers of questions, scaled scores allow a comparison of how a student performed on each section of the test. For example, without scaled scores we would have difficulty understanding whether 25 of 35 questions correct on one section of the test is comparable to answering 39 of 50 questions correct on another section. Second, scaled scores allow the reporting of scores that otherwise could not be reported. For example, the scaled scores for three sections of the test can be combined to produce a scaled score that gives a measure of a student's ability in a broad skills area. This procedure is used in reporting a scaled score for Composition on the NJCBSPT. By combining the scaled scores for the Sentence Structure and Logical Relationships sections with the readers' scores on the Essay section of the test, a single scaled score which reflects the student's total performance on all three of these sections can be reported. Such a score measures a student's ability in composition better than any of the individual scores by themselves. The same is true with respect to the Total English score which permits us to compare a student's performance on the entire verbal test with his or her performance on those sections of the test which cover more specific skills areas. Such information should prove useful in determining whether a student needs remedial/developmental assistance. Third, scaled scores will allow the Board of Higher Education, the Council and the colleges to compare the results of the test from year to year. Without scaled scores such a comparison becomes impossible.

When using scoring scales, it might be useful to think of them as something like a thermometer. All thermometers measure heat. However, some thermometers are designed to measure temperatures as low as -460°F while others measure temperatures only as low as -60°F. Then, too, there are thermometers which measure on the centigrade scale and those which measure on the fahrenheit scale. Each thermometer is designed to measure heat and provide reasonably accurate measurements over a certain range. Each thermometer thus measures appropriately for its purpose but along a different range on the temperature scale.

This analogy is useful when examining scaled scores, especially the scores for the NJCBSPT. The score scale used to report the results of the NJCBSPT is designed to yield information along a limited range. Since the test is designed to determine whether a student might benefit from special assistance before enrolling in regular college-level courses, the score scale provides the most useful measurement along the lower range where the most accurate measurement is needed to assess the extent of a student's skills deficiencies if they exist.

Most tests are designed to distribute results over the entire scale. Thus, the results of most standardized tests are designed to approximate the familiar "bell-shaped" curve. Because the NJCBSPT is designed to measure most accurately along the lower range of the scale, it will not produce such a curve.

Compare the theoretical normal distribution in Figure 1 with the NJCBSPT distribution in Figure 2. The important question that the NJCBSPT is intended to help answer is whether an incoming student will profit more from placement in the regular first-year program or from placement in the classes or program that the college is offering to prepare students for the regular program. In order to increase the reliability of this decision, the NJCBSPT is designed to arrange scores so that the most useful measurement is provided in the range where the decision is likely to be made. Note that in Figure 2 the scores do not fall in a symmetrical pattern above and below the mean of 65; they spread out in the score ranges where measurement is most needed, as defined by the purposes of the test.

It is important to remember one of the oddities of measurement in interpreting the scores on the NJCBSPT. Because the test is designed to measure across a limited range, the mathematical formula used to convert raw scores to scaled scores will distribute the scaled scores across the lower range of the scale where accurate measurement is needed for placement decisions. However, while this formula distributes the scores across the lower range, it does not distribute them as widely across the upper range. While the test can provide quite accurate measurement across the lower score range, it cannot provide similar measurement across the upper range. This phenomenon is a property of this scoring procedure and is known as the "ceiling effect" wherein scores can go only so high on the scale and then the "ceiling" inherent in the conversion formula prevents them from going higher. Thus no student, even one who answers every question correctly, can receive the highest scaled score, as Figure 2 demonstrates. For the purpose for which this test is intended, therefore, students who achieve a scaled score of 65 or higher can be considered to have performed adequately and probably do not need special assistance. They should not, however, be automatically considered potential "A" students.

While the reading, writing, and computation sections of the test are distributed as illustrated in Figure 2, the results of the Elementary Algebra section of the test reveal that most students do not perform adequately on a relatively easy test of elementary algebra. Figure 3 gives the distribution of scaled scores for the Elementary Algebra section of the test. These scores show that surprisingly large numbers of students entering college have not mastered the most fundamental principles of elementary algebra. It is important to note also that 4,147 students did not even attempt the Elementary Algebra section of the test and their scores are not included in the results illustrated in Figure 3. If these students were included in the test results, the curve in Figure 3 would extend more to the left.

When examining Figures 2-3, and all results of the NJCBSPT, it is important not to confuse the term mean with the term median. The median scaled score is the one above which half the scores lie and below which the other half lie. The mean scaled score of a group is not necessarily the mid-point of that scale. Thus, the mid-point of the scoring scale does not imply that half of the students taking the test scored above that score and half below.

The reliability index used for the NJCBSPT is one of internal consistency, or the extent to which the items on the test are measuring the same abilities. The most common estimate of internal consistency reliability is the Kuder-Richardson Formula 20 (KR-20), which is being used for assessing the reliability of the NJCBSPT. The following reliabilities and mean r-biserials have been computed for the NJCBSPT.

Section of the Test	Reliability	Mean r-biserial
Reading Comprehension	.897	.56
Sentence Structure	.870	.55
Logical Relationships	.908	.57
Essay	.79	--
Computation	.904	.64
Elementary Algebra	.924	.62

Figure 1

A Theoretical Normal
Distribution of Scores

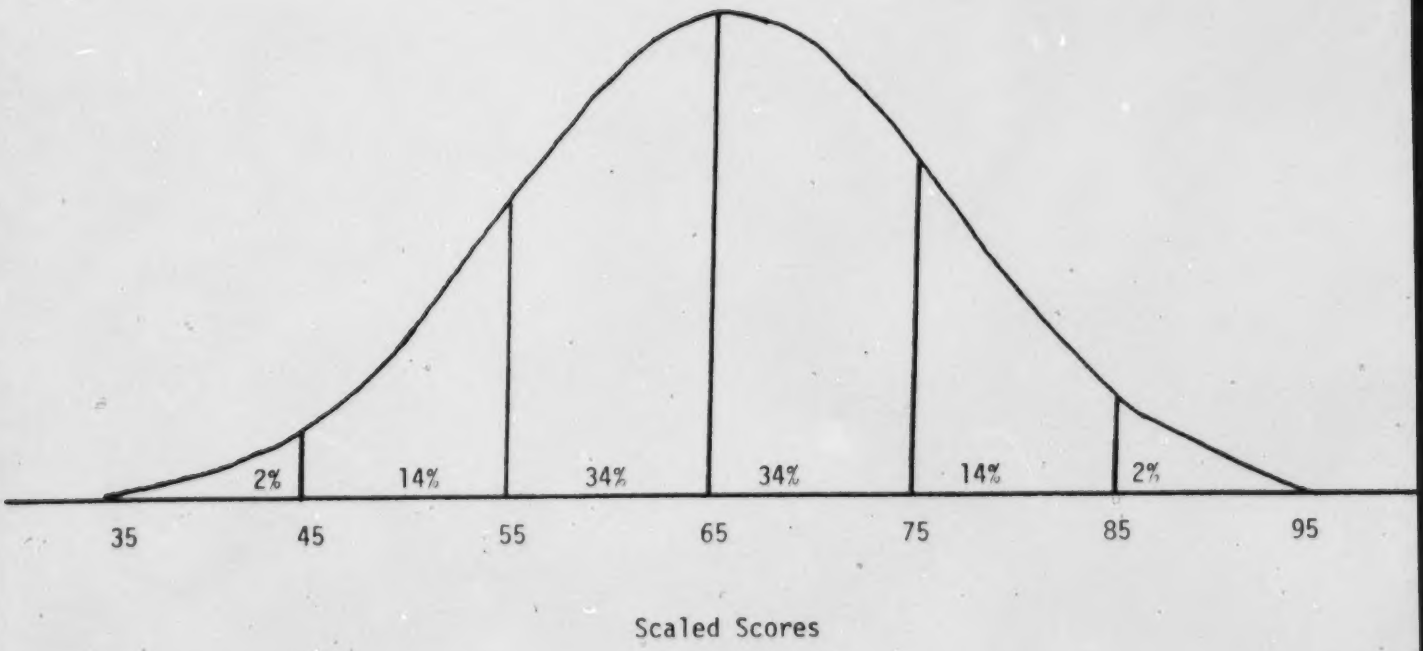


Figure 2

Approximate Distribution for these NJCBSPT Scores:

Reading Comprehension
Sentence Structure
Logical Relationships
Composition
Total English
Computation

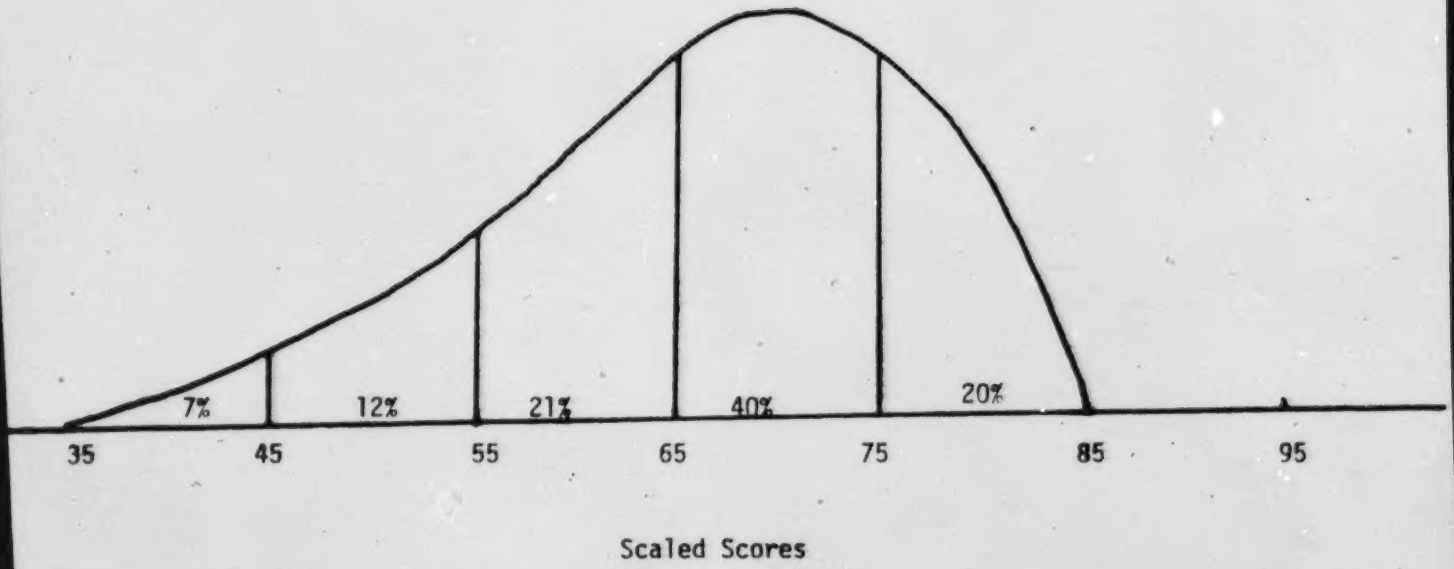
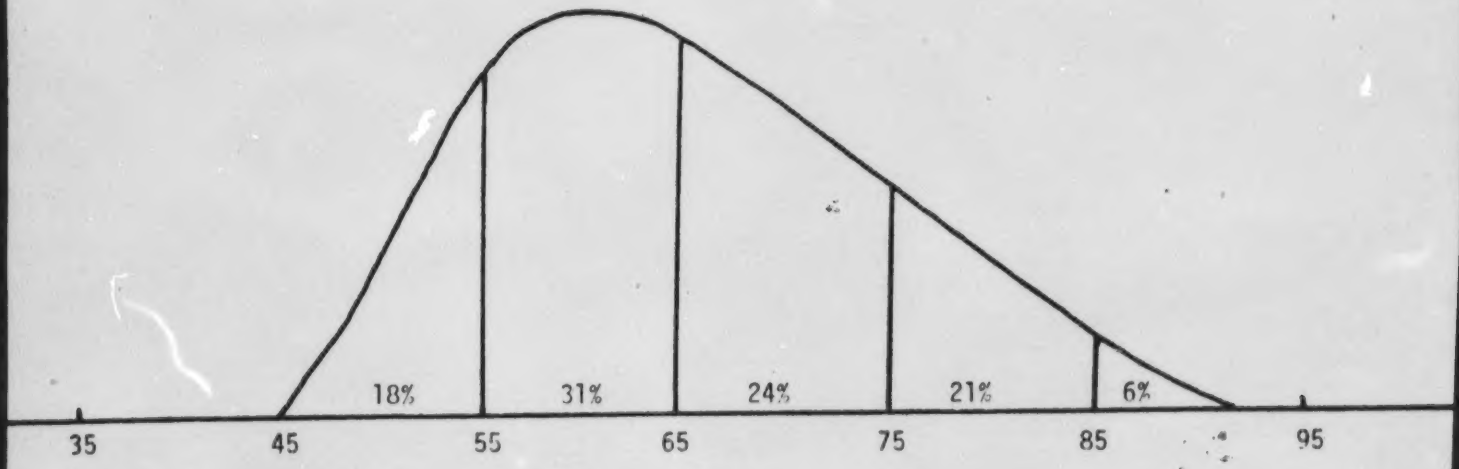


Figure 3

Approximate Distribution of
NJCBSPT Elementary Algebra Scores



Scaled Scores

Some Testing Terms

Mean:	One indicator of the "central tendency" of a distribution, it is the sum of the scores in a distribution divided by the number of scores in the distribution.
Median:	Another indicator of the "central tendency" of a distribution, it is that point in the distribution above which half the scores lie and below which half the scores lie.
Raw Score:	A score which is simply the number of items right on a test.
r-biserial:	A correlation coefficient relating performance on a test question and performance on the measure used as a criterion, such as the total test score. It is an index of discrimination measuring the extent to which examinees who score high on the measure used as the criterion tend to get the question right and those who score low tend to get it wrong.
Scaled Score:	The score on a test when the raw score has been converted to a number or position on a standard reference scale.
Standard Deviation:	Unlike the mean or median, which are indicators of the "central tendency" of a score distribution, the standard deviation is an indicator of the "variability" or "dispersion" of the scores.
Reliability:	The degree to which a test is consistent in its measurements.

Appendix C

STUDENT BACKGROUND INFORMATION

	Two-Year Colleges		State Colleges		NJIT		Rutgers University		State Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Full-time students	18445	79	10128	93	676	98	6799	93	36783	85
Part-time students	4589	20	681	6	12	2	474	6	5761	13
Total number tested	23390		10840		690		7322		42984	
Graduated from high school in 1978	12253	52	8959	83	647	94	6379	88	28848	67
Graduated from high school before 1978	9359	40	1807	17	38	5	866	12	12198	28
Did not graduate	1255	5	35	.3	4	1	22	1	1317	3
Studied English for three or more years	20782	89	10573	98	684	99	7154	98	39921	93
Studied mathematics for three or more years	14158	60	8552	79	680	99	6744	93	30674	71
Consider themselves below average in written expression	1914	8	388	4	28	4	210	3	2593	6
Consider themselves average in written expression	11748	50	4551	42	288	42	2236	31	19152	44
Consider themselves above average in written expression	9162	39	5818	54	369	54	4781	66	20483	48
Consider themselves below average in mathematical ability	4282	18	1261	12	4	1	443	6	6155	14
Consider themselves average in mathematical ability	11567	49	5167	48	117	17	2183	30	19400	45
Consider themselves above average in mathematical ability	6907	29	4324	40	564	82	4602	64	16601	39

Appendix D

NUMBER OF STUDENTS NOT ACHIEVING
A SCALED SCORE OF 65

	TWO-YEAR COLLEGES			STATE COLLEGES			NJIT			RUTGERS UNIVERSITY			STATE TOTAL		
	No. Below Scaled Score of 65	Not Attempted	Total % Not Achieving 65	No. Below Scaled Score of 65	Not Attempted	Total % Not Achieving 65	No. Below Scaled Score of 65	Not Attempted	Total % Not Achieving 65	No. Below Scaled Score of 65	Not Attempted	Total % Not Achieving 65	No. Below Scaled Score of 65	Not Attempted	Total % Not Achieving 65
READING COMPREHENSION	11352	8	48	3675	1	34	143	0	21	1285	0	17	16764	9	39
SENTENCE STRUCTURE	12326	17	53	3615	2	33	158	0	23	1301	0	18	17682	20	41
LOGICAL RELATIONSHIPS	11408	18	49	3635	3	33	148	0	21	1261	10	17	16762	32	39
COMPOSITION	12698	110	55	3853	11	36	185	1	27	1317	15	18	18358	138	43
TOTAL ENGLISH	12439	111	54	3744	11	35	164	1	24	1241	15	17	17897	139	42
COMPUTATION	13505	37	58	4107	6	38	31	0	4	1236	12	17	19194	163	45
ELEMENTARY ALGEBRA	13462	3785	74	4965	159	47	24	0	3	1414	91	20	20231	4147	57
	(N=23,390)			(N=10,840)			(N=690)			(N=7,322)			(N=42,984)		

FREQUENCY OF SCALED SCORE INTERVALS
READING COMPREHENSION

	Two-Year Colleges		State Colleges		NJIT		Rutgers University		State Total	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
90-95	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0
80-84	353	2	193	2	19	3	284	4	864	2
75-79	3204	14	2026	19	202	29	2355	32	7888	18
70-74	4328	19	2820	26	202	29	2107	29	9630	22
65-69	4145	18	2125	20	124	18	1291	18	7829	18
60-64	3167	14	1432	13	67	10	592	8	5374	13
55-59	2343	10	845	8	31	4	276	4	3575	8
50-54	1793	8	518	5	14	2	173	2	2538	6
45-49	1280	5	328	3	13	2	108	1	1762	4
40-44	980	4	213	2	8	1	61	1	1280	3
35-39	1789	8	339	3	10	1	75	1	2235	5

Appendix F

FREQUENCY OF SCALED SCORE INTERVALS
SENTENCE STRUCTURE

	Two-Year Colleges		State Colleges		NJIT		Rutgers University		State Total	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
90-95	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0
80-84	493	2	439	4	33	5	596	8	1589	4
75-79	2554	11	2035	19	164	24	2204	30	7090	16
70-74	3892	17	2675	25	186	27	2306	31	8943	21
65-69	4108	18	2074	19	149	22	1185	16	7660	18
60-64	2341	10	1041	10	54	8	421	6	3926	9
55-59	3056	13	1053	10	49	7	393	5	4645	11
50-54	2443	10	656	6	26	4	236	3	3417	8
45-49	1877	8	408	4	11	2	143	2	2467	6
40-44	1401	6	275	3	12	2	66	1	1779	4
35-39	1208	5	182	2	6	1	42	1	1448	3

FREQUENCY OF SCALED SCORE INTERVALS
LOGICAL RELATIONSHIPS

	Two-Year Colleges		State Colleges		NJIT		Rutgers University		State Total	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
90-95	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0
80-84	283	1	153	1	11	2	202	3	657	2
75-79	2896	12	1724	16	172	25	2031	28	6927	16
70-74	4565	20	3127	29	207	30	2615	36	10711	25
65-69	4220	18	2198	20	152	22	1203	16	7895	18
60-64	2631	11	1113	10	50	7	464	6	4347	10
55-59	2663	11	983	9	45	7	347	5	4120	10
50-54	1996	9	622	6	18	3	218	3	2921	7
45-49	1233	5	313	3	14	2	85	1	1675	4
40-44	1232	5	302	3	9	1	78	1	1645	4
35-39	1653	7	302	3	12	2	69	1	2054	5

FREQUENCY OF ESSAY SCORES

	Two-Year Colleges		State Colleges		NJIT		Rutgers University		State Profile	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
8	495	2	415	4	23	3	319	4	1272	3
7	1652	7	1279	12	85	12	1139	16	4218	10
6	6128	26	3580	33	220	32	3170	43	13365	31
5	5511	24	2704	25	195	28	1588	22	10203	24
4	5746	25	2016	19	120	17	883	12	8919	21
3	2027	9	507	5	33	5	152	2	2745	6
2	1699	7	323	3	13	2	60	1	2102	5
0	41	0	7	0	0	0	6	0	54	0
	(NA=91)		(NA=9)		(NA=1)					

Appendix I

FREQUENCY OF SCALED SCORE INTERVALS
COMPOSITION

	Two-Year Colleges		State Colleges		NJIT		Rutgers University		State Total	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
90-95	0	0	0	0	0	0	0	0	0	0
85-89	17	0	0	0	0	0	15	0	44	0
80-84	569	2	477	4	33	5	475	6	1572	4
75-79	2205	9	1711	16	142	21	2099	29	6257	15
70-74	3810	16	2608	24	182	26	2198	30	8986	21
65-69	3981	17	2170	20	147	21	1203	16	7629	18
60-64	3567	15	1494	14	79	11	616	8	5860	14
55-59	2825	12	929	9	52	8	307	4	4207	10
50-54	2223	10	619	6	21	3	199	3	3115	7
45-49	1549	7	334	3	18	3	105	1	2039	5
40-44	1115	5	240	2	9	1	40	1	1414	3
35-39	1419	6	237	2	6	1	50	1	1723	4

FREQUENCY OF SCALED SCORE INTERVALS
TOTAL ENGLISH

	Two-Year Colleges		State Colleges		NJIT		Rutgers University		State Total	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
90-95	0	0	0	0	0	0	0	0	0	0
85-89	4	0	0	0	0	0	3	0	9	0
80-84	498	2	416	4	34	5	465	6	1427	3
75-79	2367	10	1803	17	151	22	2245	31	6684	16
70-74	4011	17	2647	24	204	30	2178	30	9202	21
65-69	3960	17	2219	20	136	20	1175	16	7626	18
60-64	3523	15	1463	13	78	11	580	8	5752	13
55-59	2673	11	872	8	38	6	270	4	3936	9
50-54	2082	9	554	5	18	3	171	2	2881	7
45-49	1408	6	359	4	14	2	117	2	1934	39
40-44	1077	5	217	2	5	1	49	1	1361	3
35-39	1676	7	279	3	11	2	54	1	2033	5

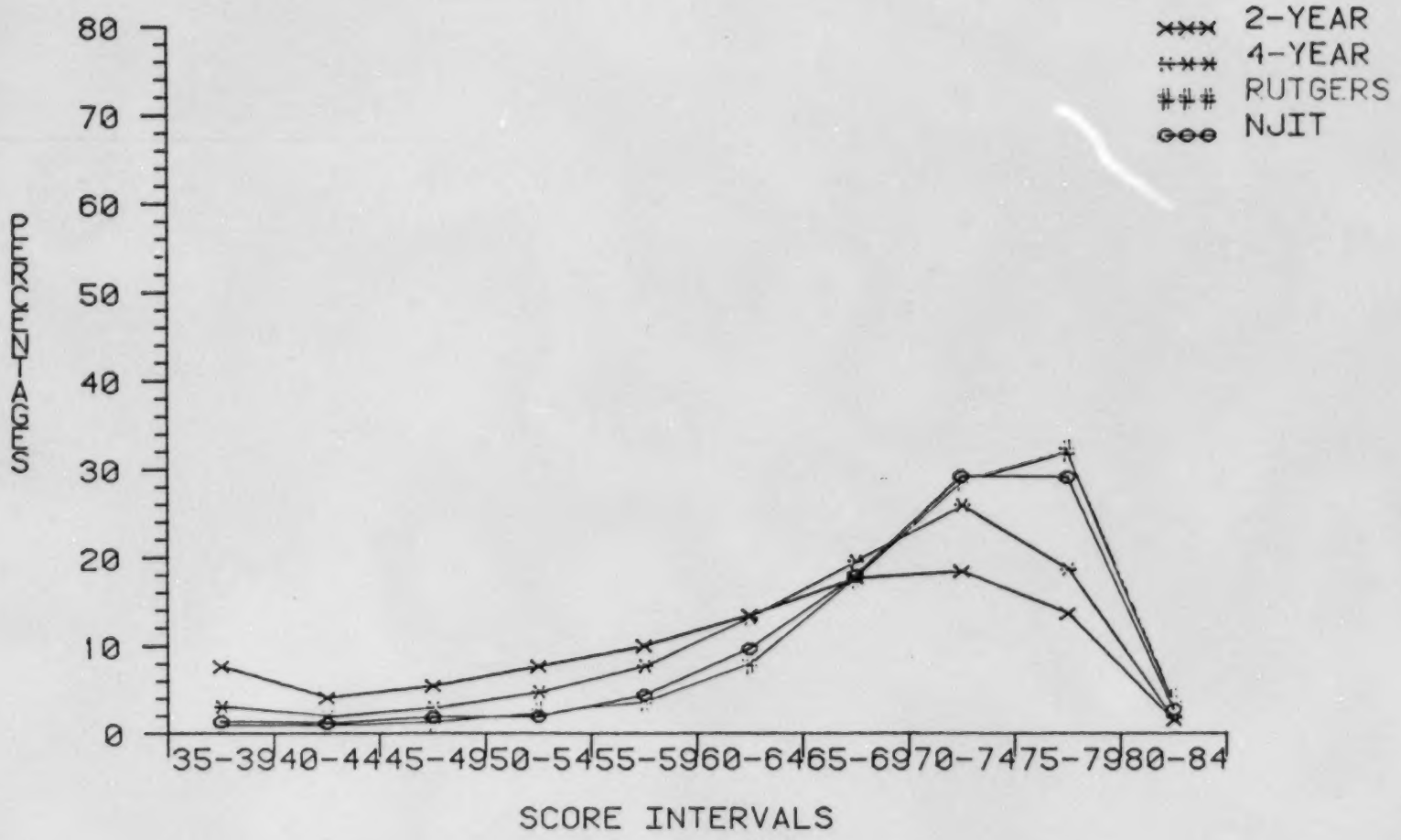
FREQUENCY OF SCALED SCORE INTERVALS COMPUTATION

	Two-Year Colleges		State Colleges		NJIT		Rutgers University		State Total	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
90-95	0	0	0	0	0	0	0	0	0	0
85-89	0	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0	0
75-79	2752	12	2261	21	406	59	3287	45	8806	20
70-74	3649	16	2532	23	195	28	1904	26	8387	20
65-69	3447	15	1934	18	58	8	883	12	6434	15
60-64	3145	13	1411	13	15	2	498	7	5162	12
55-59	2866	12	1044	10	11	2	296	4	4301	10
50-54	2866	12	791	7	1	0	248	3	3971	9
45-49	2329	10	562	5	2	0	119	2	3054	7
40-44	1575	7	233	2	2	0	57	1	1888	4
35-39	724	3	66	1	0	0	18	0	818	2

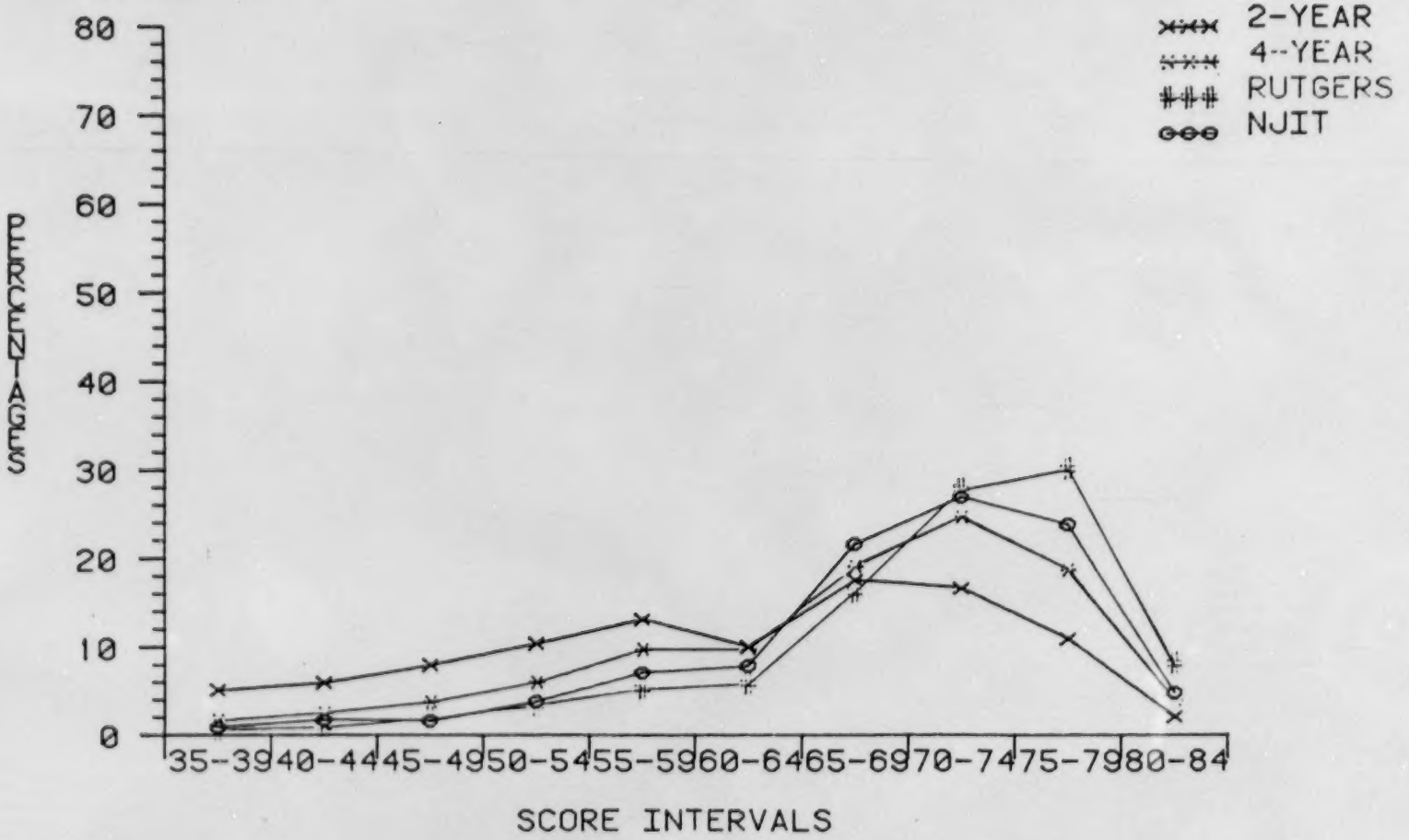
FREQUENCY OF SCALED SCORE INTERVALS
ELEMENTARY ALGEBRA

	Two-Year Colleges		State Colleges		NJIT		Rutgers University		State Total	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
90-95	0	0	0	0	0	0	0	0	0	0
85-89	334	1	413	4	146	21	1062	15	1976	5
80-84	945	4	1031	10	263	38	1738	24	4016	9
75-79	1042	4	1154	11	118	17	1127	15	3488	8
70-74	1904	8	1743	16	105	15	1204	16	5043	12
65-69	1918	8	1375	13	34	5	686	9	4083	9
60-64	3776	16	1992	18	19	3	647	9	6555	15
55-59	4177	18	1604	15	3	0	377	5	6274	15
50-54	4172	18	1193	11	2	0	316	4	5794	13
45-49	1337	6	176	2	0	0	74	1	1608	4
40-44	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0

NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-READING COMPREHENSION-



NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-SENTENCE STRUCTURE-



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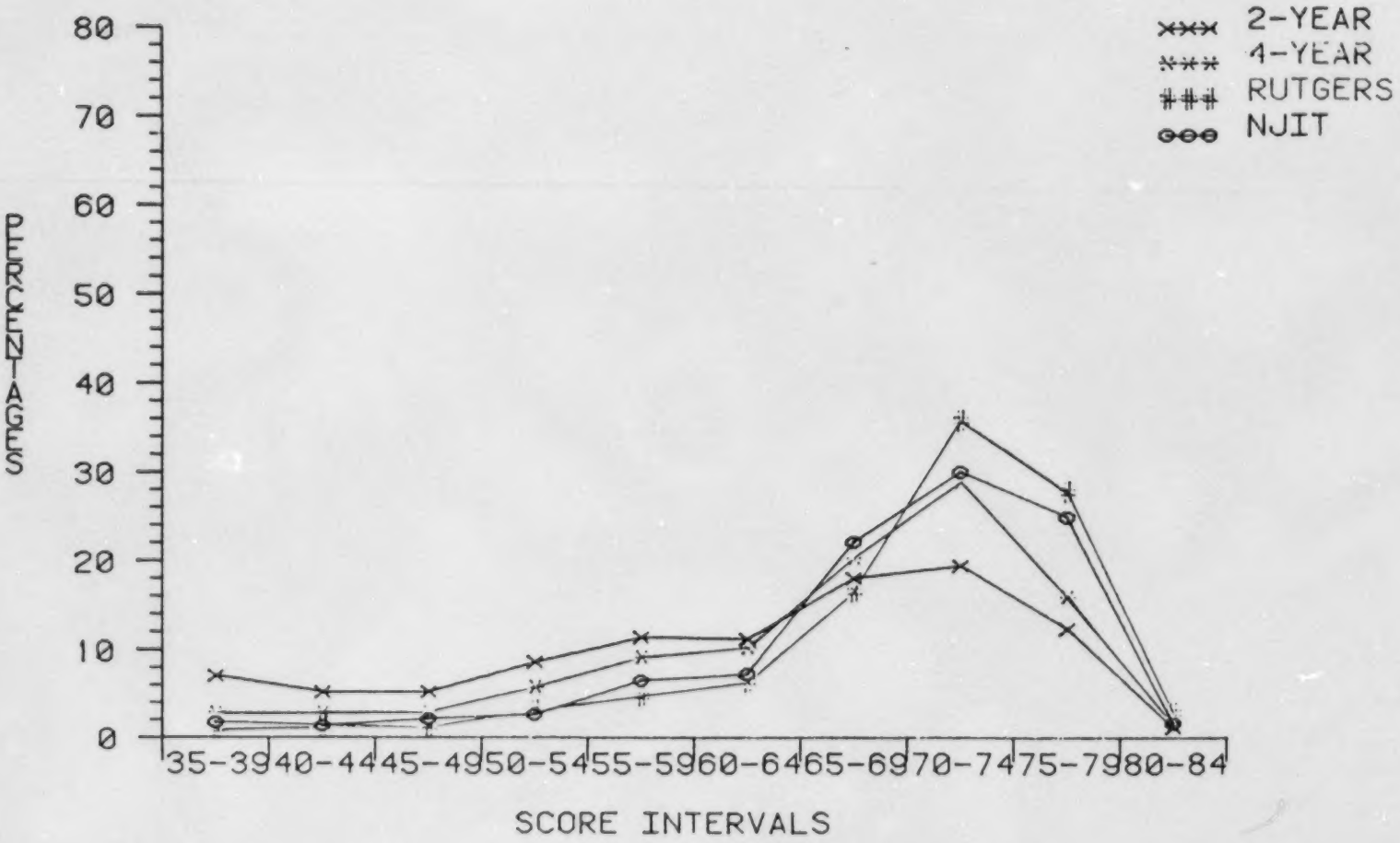
NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-LOGICAL RELATIONSHIPS-



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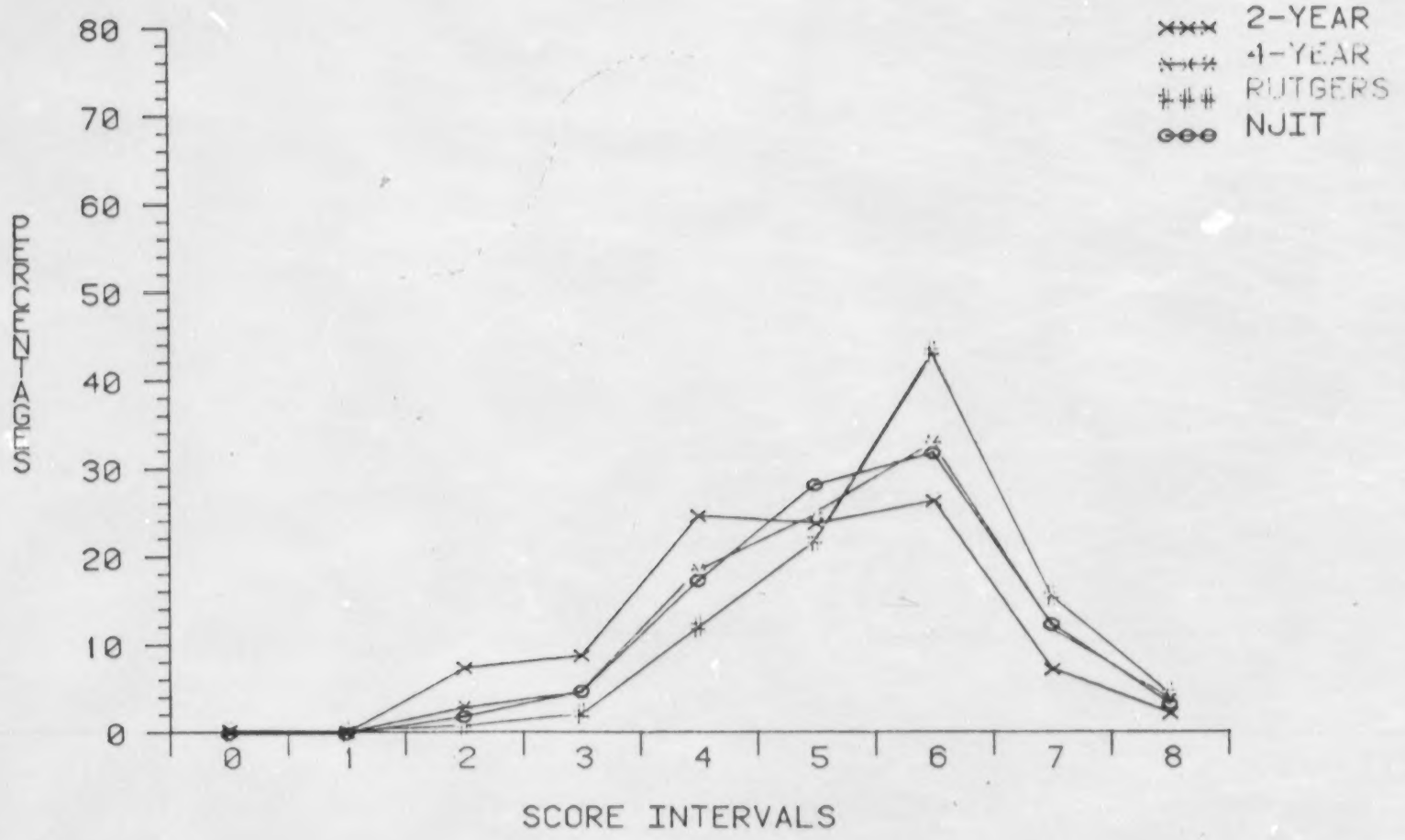
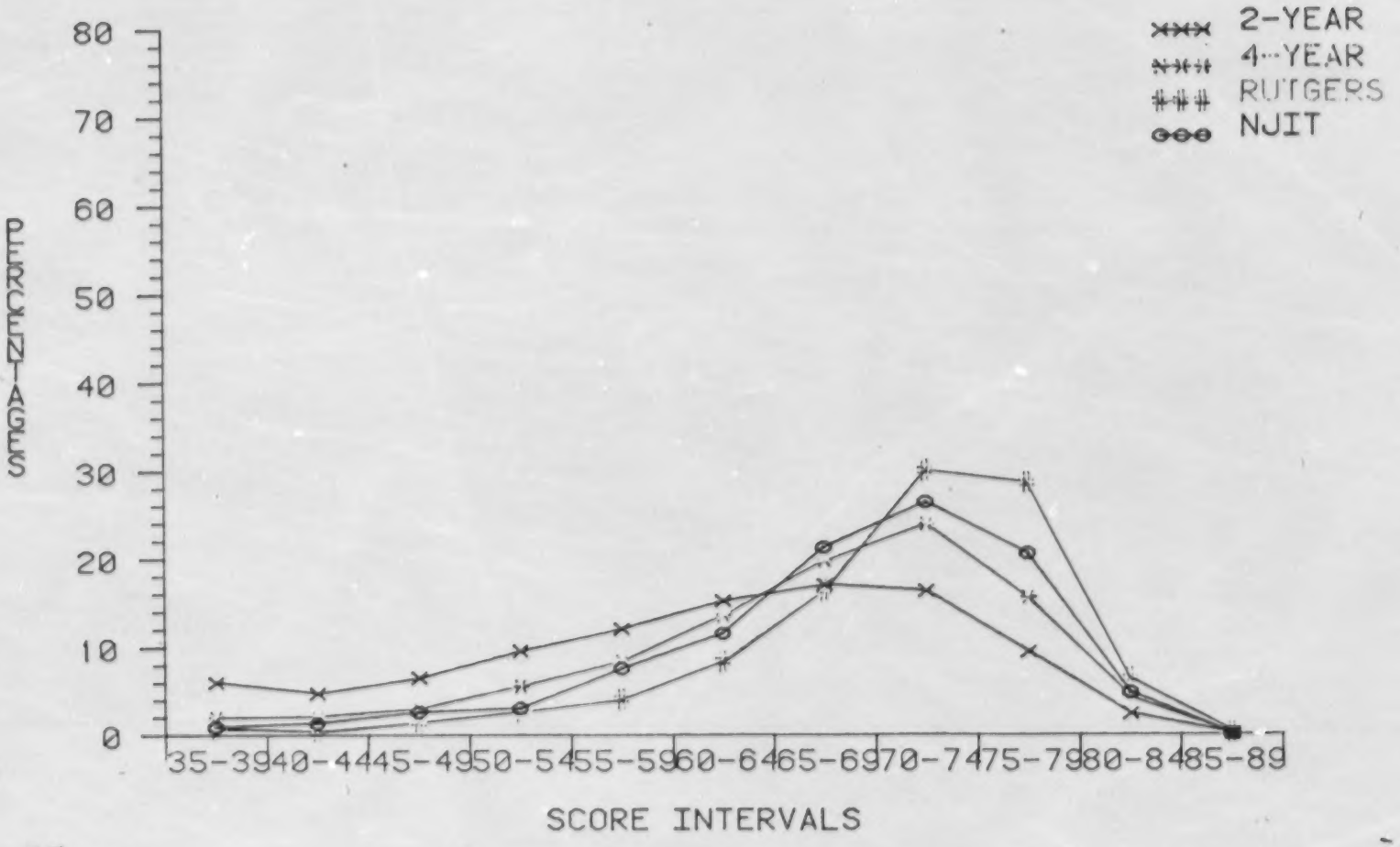
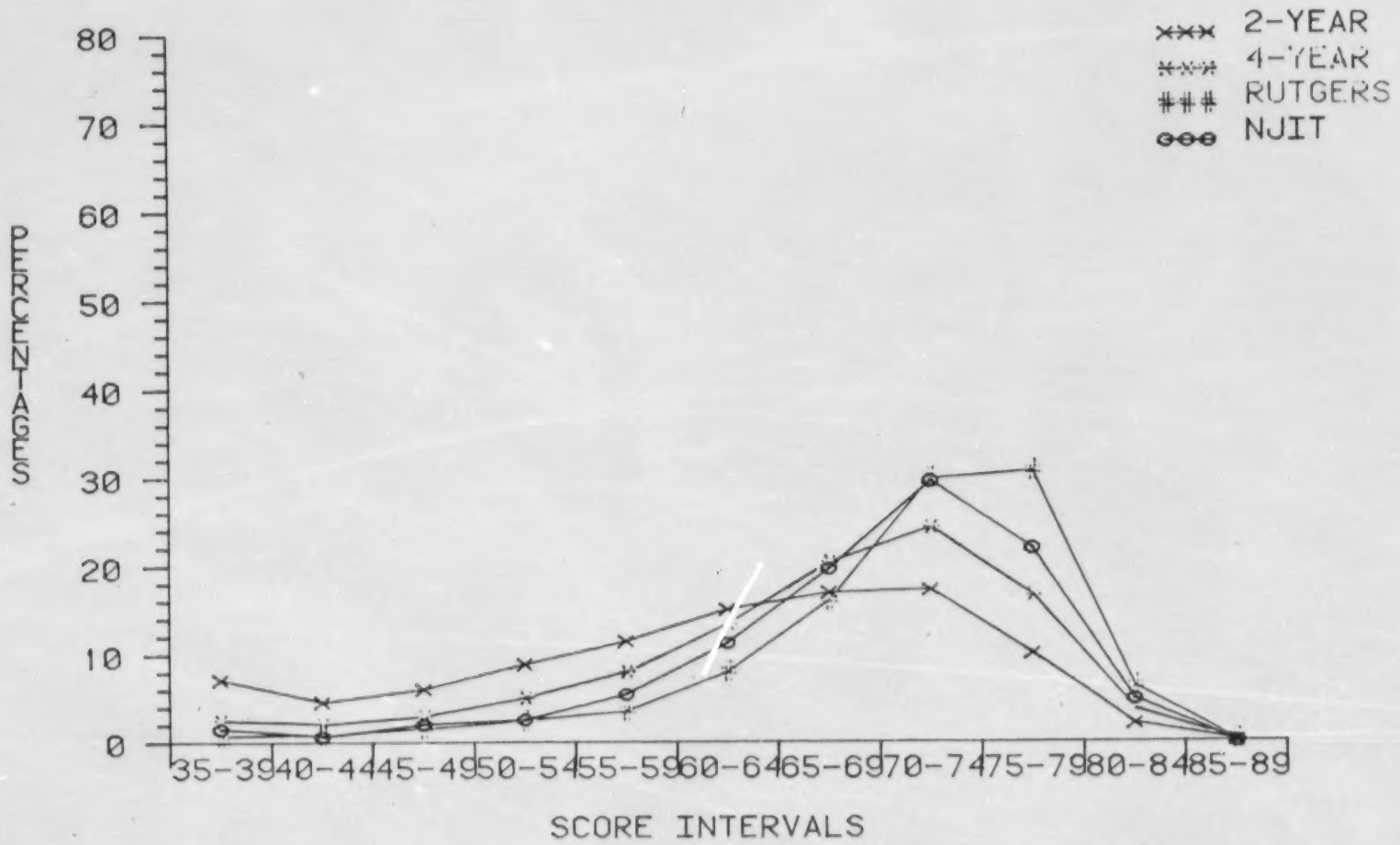
CUMULATIVE CYCLE
-ESSAY-



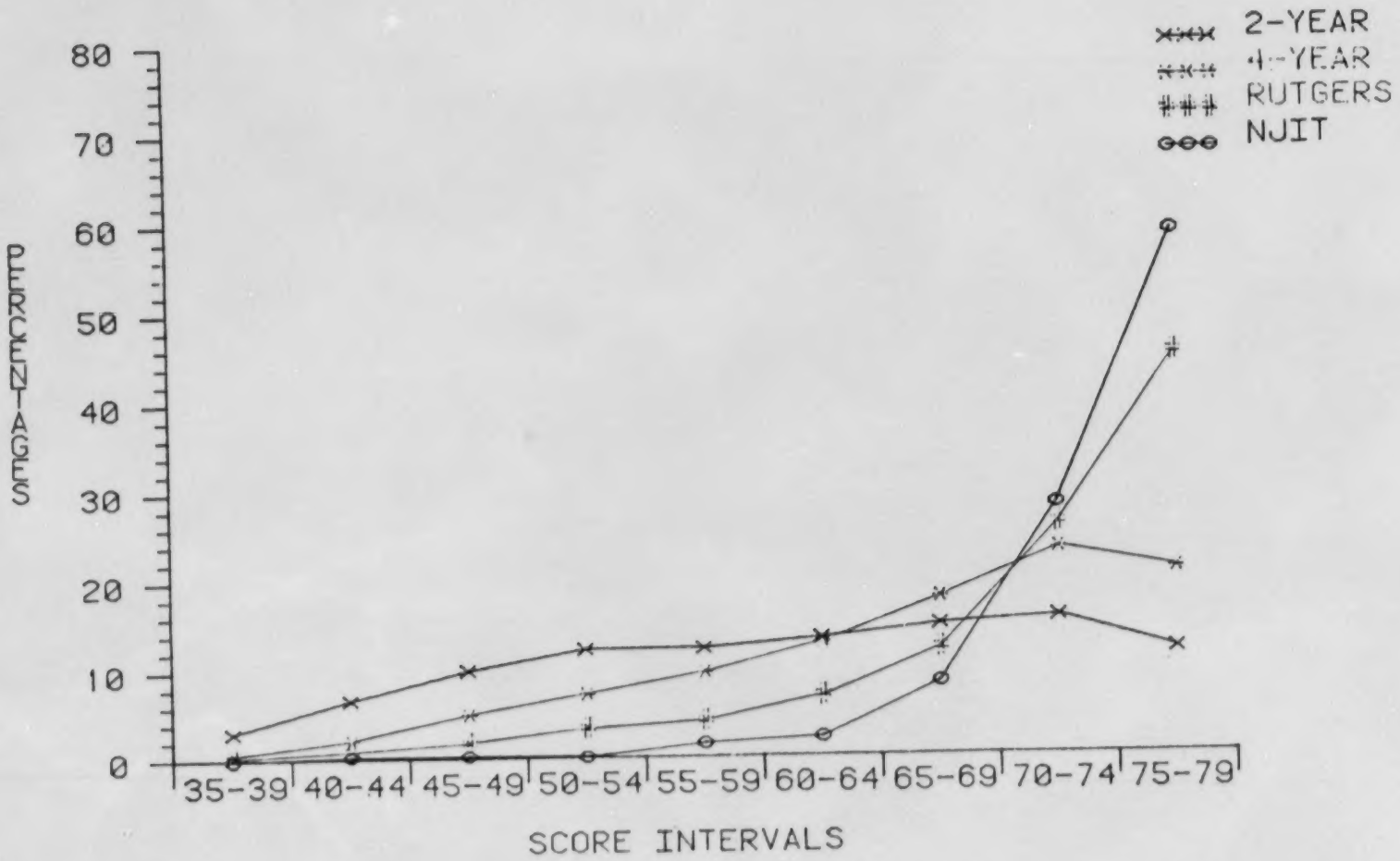
NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-COMPOSITION-



NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-TOTAL ENGLISH-



NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-COMPUTATION-



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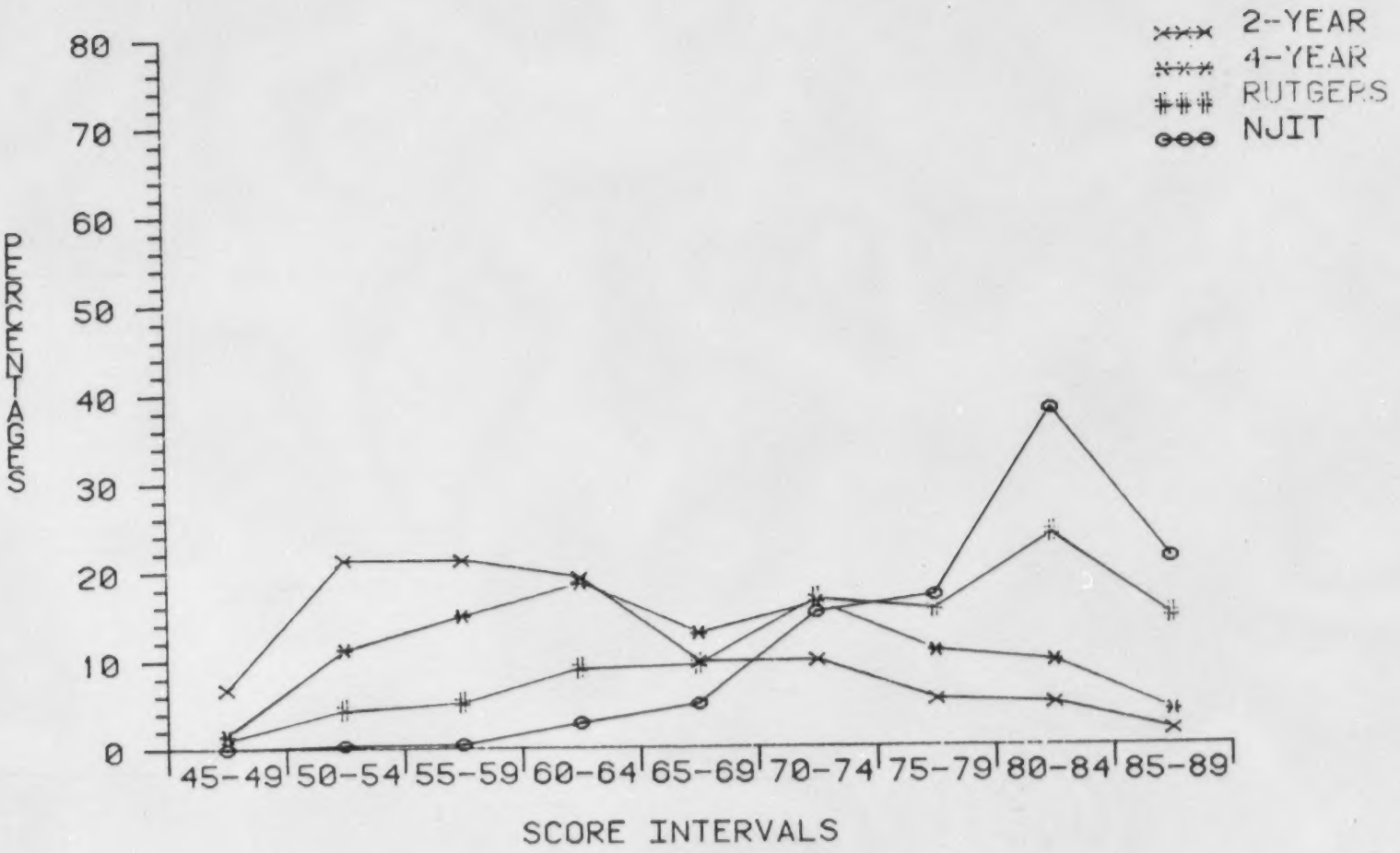
CUMULATIVE CYCLE
-ELEMENTARY ALGEBRA-



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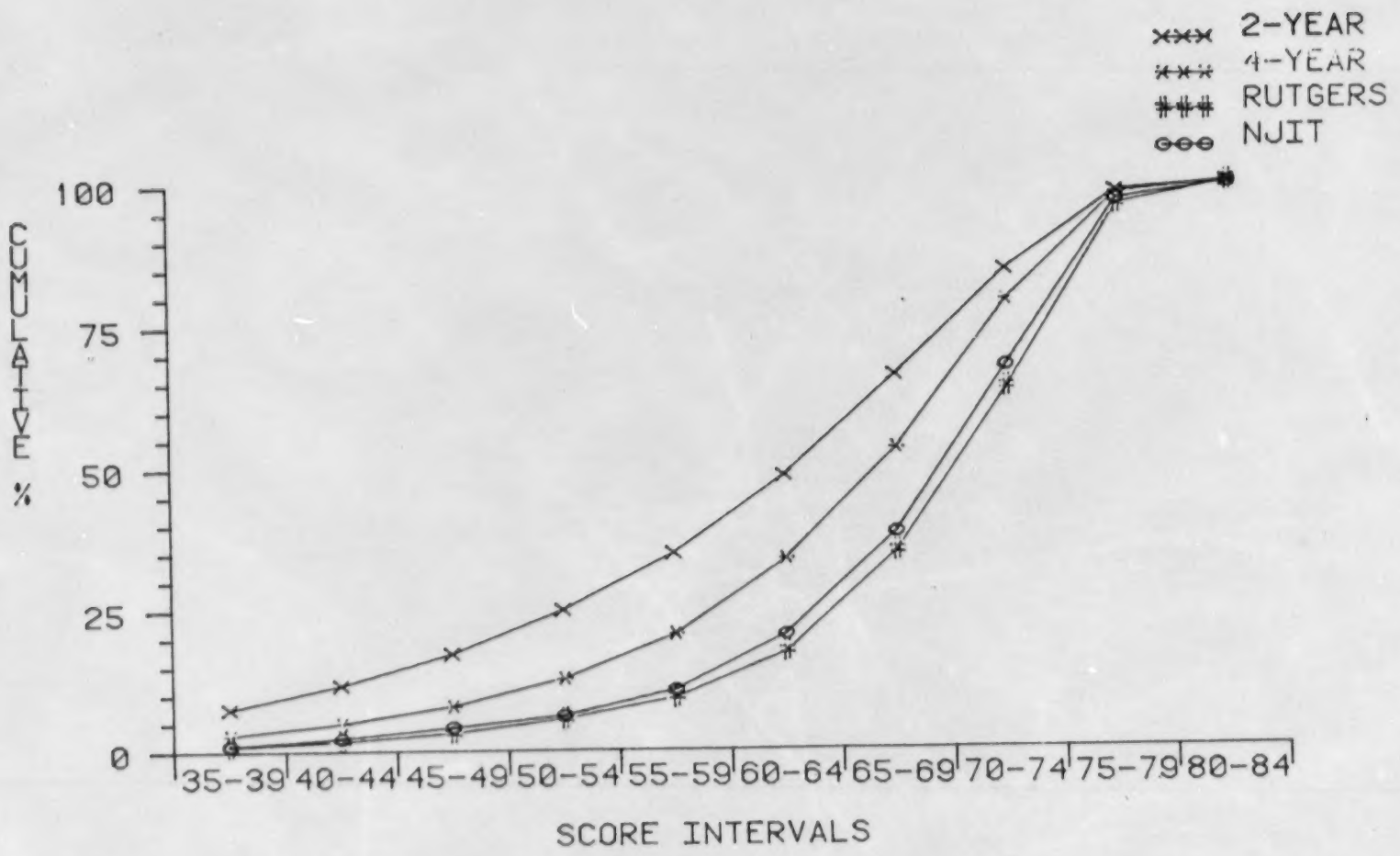
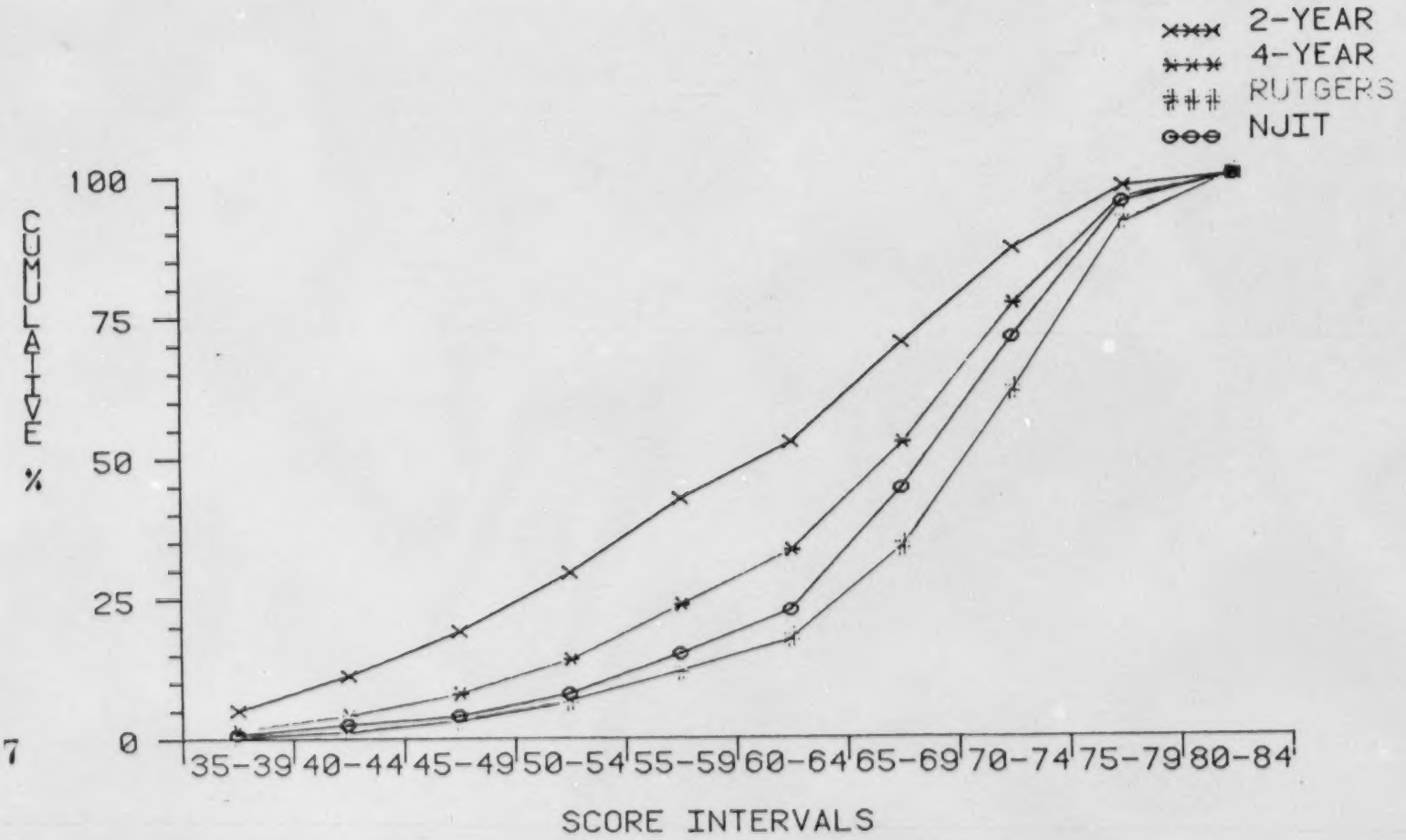
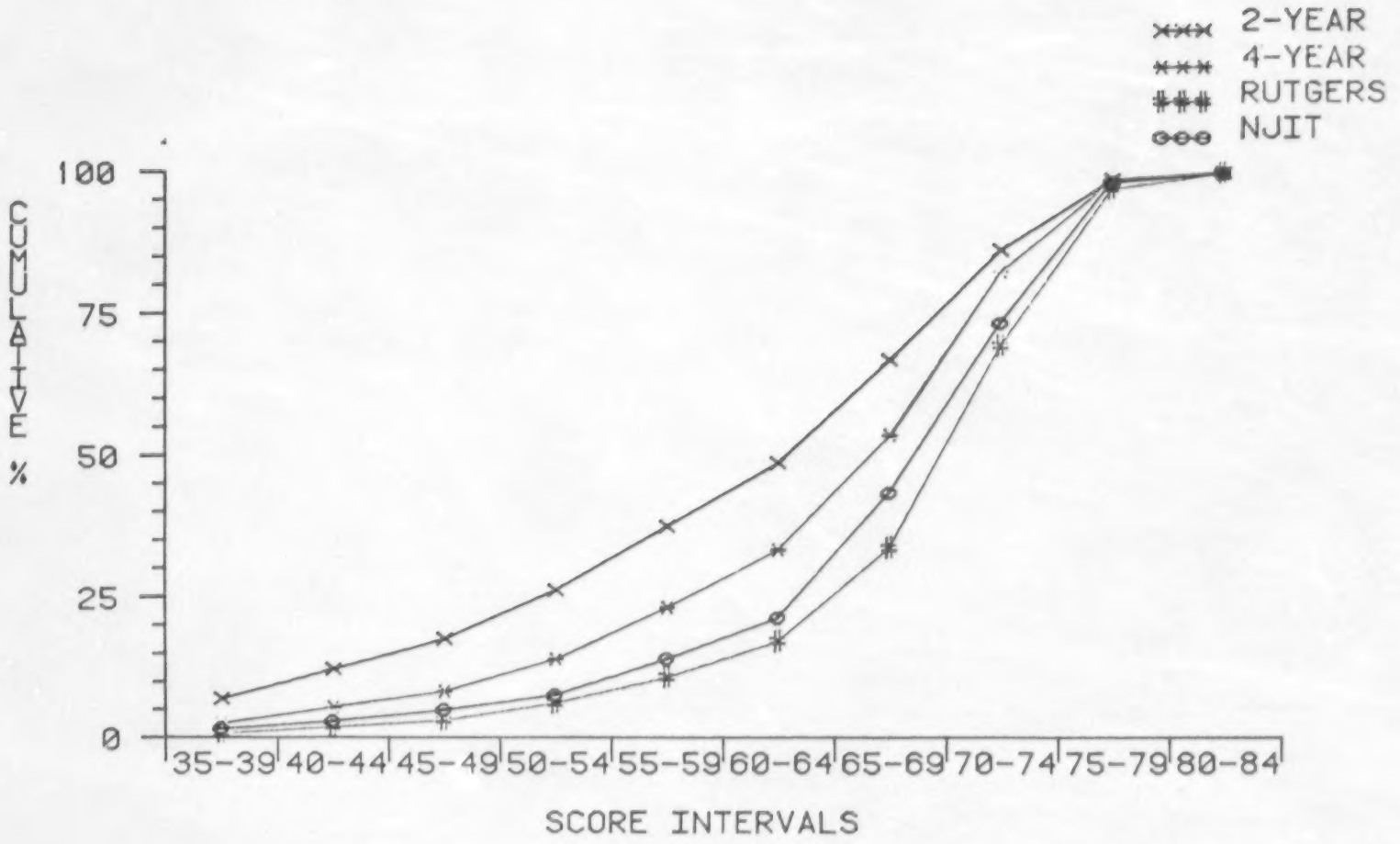
CUMULATIVE CYCLE
-READING COMPREHENSION-



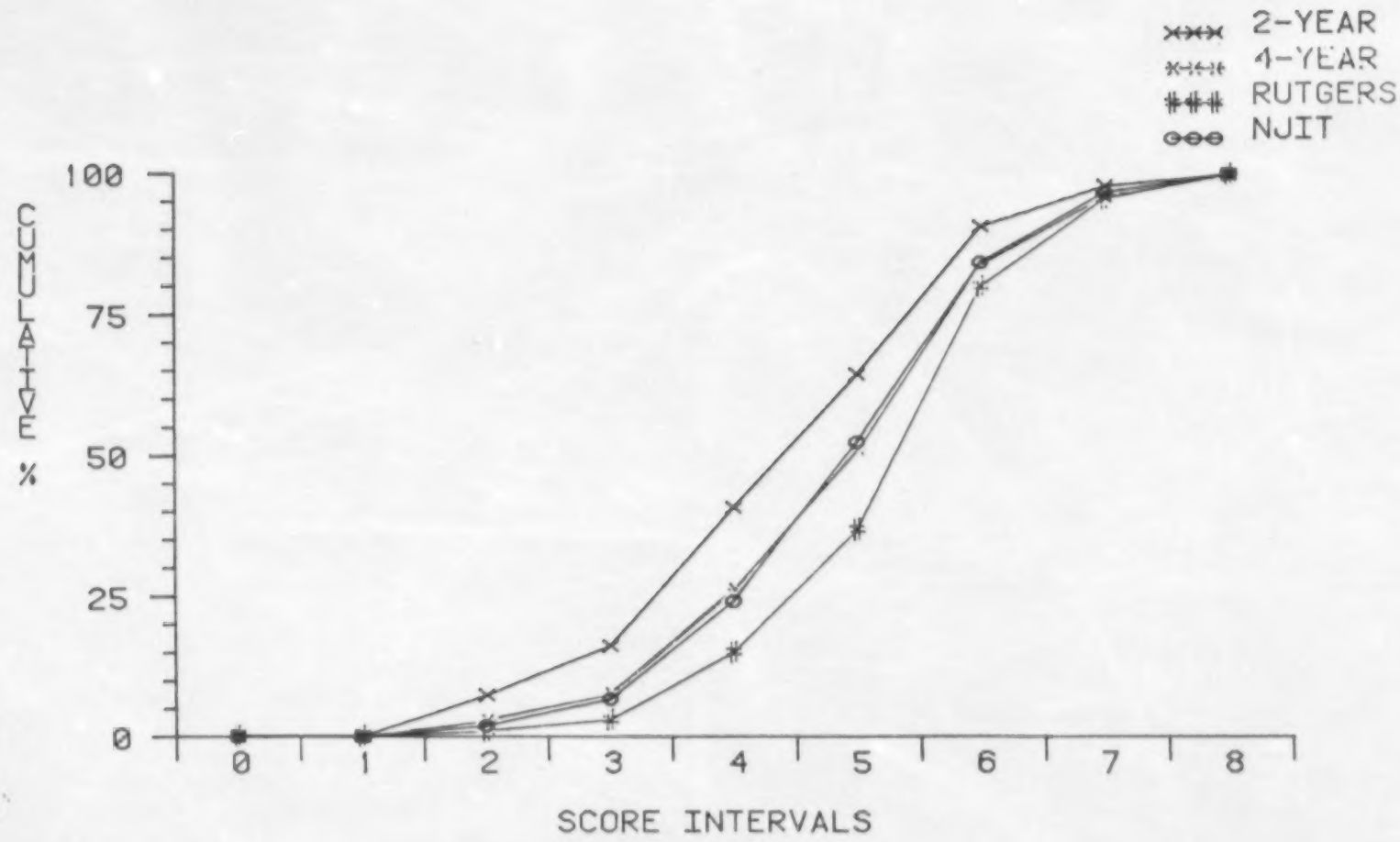
NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-SENTENCE STRUCTURE-



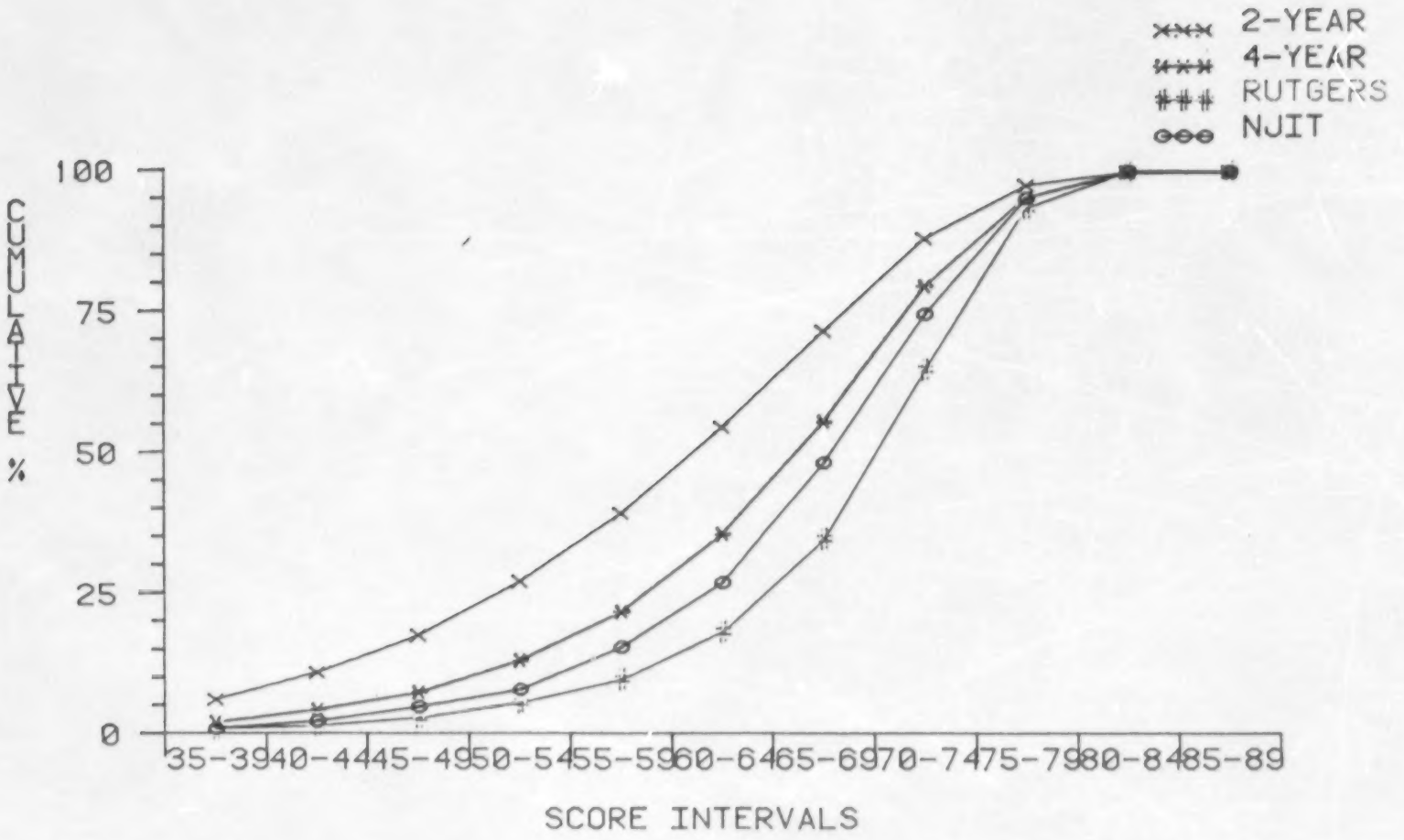
NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-LOGICAL RELATIONSHIPS-



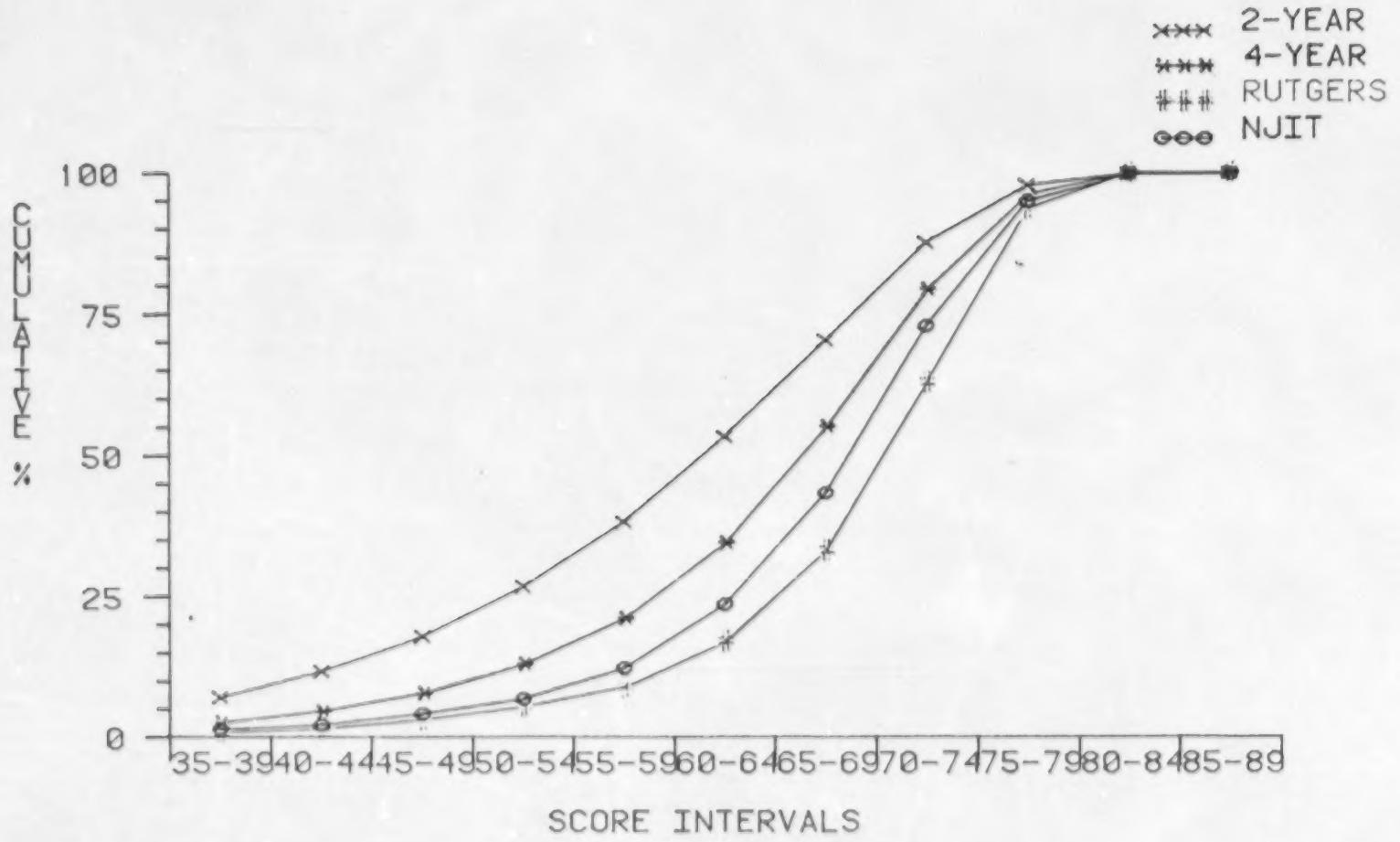
NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-ESSAY-



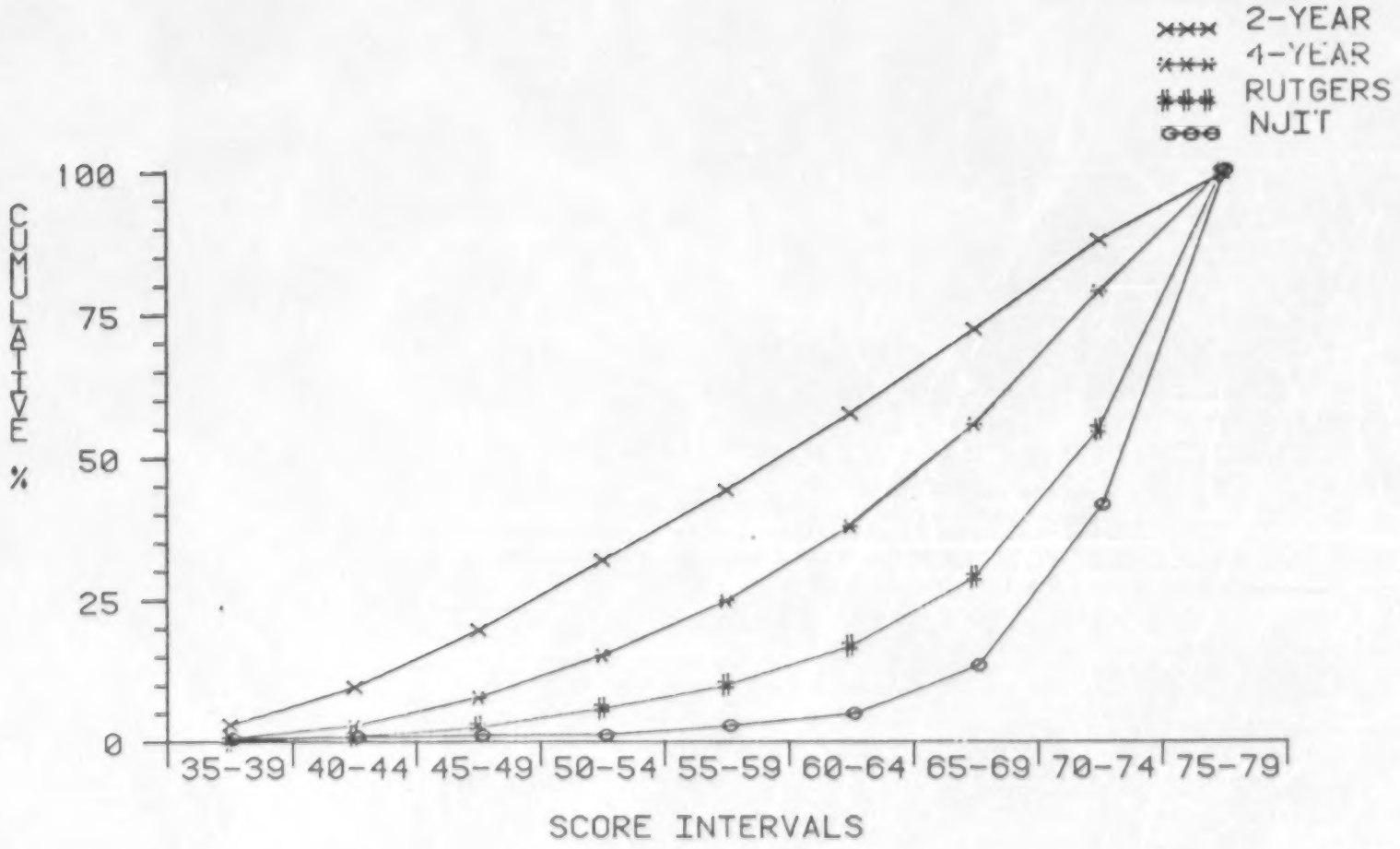
NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-COMPOSITION-



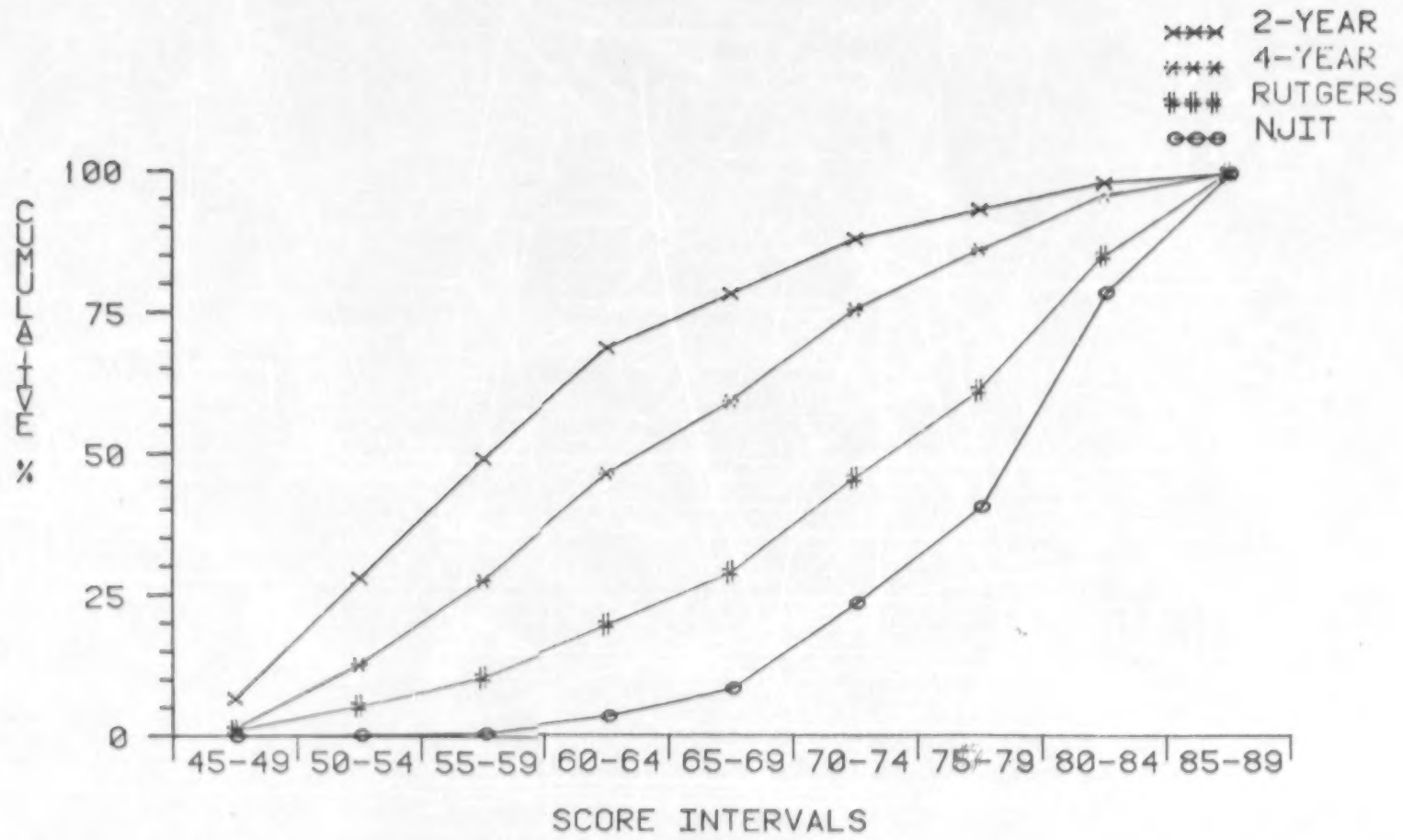
NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-TOTAL ENGLISH-



NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-COMPUTATION-



NJ COLLEGE BASIC SKILLS PLACEMENT TEST
CUMULATIVE CYCLE
-ELEMENTARY ALGEBRA-



Number of Students Admitted, Fall 1977[1]

Number of Students Tested, Fall 1978

TWO-YEAR COLLEGE SECTOR

COLLEGE	FULL-TIME ADMITS	PART-TIME ADMITS	TOTAL ADMITS	FULL-TIME[2] TESTED	PART-TIME[2] TESTED	TOTAL TESTED
ATLANTIC	748	902	1,650	526	21	563
BERGEN	1,559	348	1,907	1,886	420	2,314
BROOKDALE	1,583	802	2,385	1,710	839	2,563
BURLINGTON	792	1,155	1,947	538	188	733
CAMDEN	1,500	2,137	3,637	1,418	325	1,769
CMDNJ	79	0	79	68	8	76
CUMBERLAND	634	559	1,193	426	190	624
ESSEX	1,934	726	2,660	1,796	632	2,450
GLOUCESTER	550	635	1,185	415	36	451
HUDSON	160	146	306	362	315	694
MERCER	1,488	1,102	2,590	1,243	207	1,456
MIDDLESEX	1,716	2,036	3,752	2,149	231	2,396
MORRIS	2,490	2,141	4,631	2,050	585	2,642
OCEAN	1,125	1,263	2,388	1,012	81	1,096
PASSAIC	447	68	515	126	37	175
SALEM	422	318	740	417	97	532
SOMERSET	823	1,069	1,892	771	139	1,079
UNION/UNION CO. TECH	1,519	540	2,059	1,538	238	1,783
TOTALS	19,569	15,947	35,516	18,451	4,589	23,396

[1]Enrollment Data From Fall, 1977, HEGIS Reports

[2]356 Students Did Not Respond and Are Not Included

Number of Students Admitted, Fall 1977[1]
Number of Students Tested, Fall 1978

STATE COLLEGES

COLLEGE	FULL-TIME ADMITS	PART-TIME ADMITS	TOTAL ADMITS	FULL-TIME[2] TESTED	PART-TIME[2] TESTED	TOTAL TESTED
GLASSBORO	1545	70	1615	1423	25	1448
JERSEY CITY	887	387	1274	726	202	928
KEAN	1206	303	1509	1631	246	1877
MONTCLAIR	2015	457	2472	1716	14	1730
RAMAPO	1008	791	1799	617	77	694
STOCKTON	895	28	923	1040	36	1076
TRENTON	1020	107	1127	1300	26	1326
WM. PATERSON	1855	1352	3207	1625	55	1730
TOTALS	10431	3495	13926	10128	681	10809

[1]Enrollment Data From Fall, 1977, HEGIS Reports

[2]31 Students Did Not Respond and Are Not Included

Number of Students Admitted, Fall 1977[1]
Number of Students Tested, Fall 1978

RUTGERS UNIVERSITY

COLLEGE	FULL-TIME ADMITS	PART-TIME ADMITS	TOTAL ADMITS	FULL-TIME[2] TESTED	PART-TIME[2] TESTED	TOTAL TESTED
CAMDEN	502	16	518	559	11	572
COOK	564	1	565	606	5	611
DOUGLASS	986	4	990	995	6	1002
ENGINEERING	561	2	563	571	5	578
LIVINGSTON	908	15	923	598	7	605
MASON GROSS	6	0	6	30	0	30
NCAS[3]	930	30	960	995	20	1016
PHARMACY	156	0	156	139	1	140
RUTGERS COL.	2200	12	2212	2023	14	2056
UNIVERSITY COL.	Not Available	NA	NA	106	398	526
TOTALS	6813	80	6893	6622	467	7136

[1] Enrollment Data From Fall, 1977 HEGIS Reports

[2] 47 Students Did Not Respond and Are Not Included

[3] Includes Nursing

endix CC

Number of Students Admitted, Fall 1977[1]
Number of Students Tested, Fall 1978

NJIT

NJIT	FULL-TIME ADMITS	PART-TIME ADMITS	TOTAL ADMITS	FULL-TIME[2] TESTED	PART-TIME[2] TESTED	TOTAL TESTED
	644	8	652	676	12	690

[1]Enrollment Data From Fall, 1977 HEGIS Reports

[2]12 Students Did Not Respond and Are Not Included

PERCENTAGE OF STUDENTS TESTED IN ALL SECTORS, FALL 1978

SECTORS	TOTAL ADMITS[1]	% FULL-TIME TESTED	% PART-TIME TESTED	% TESTED
TWO-YEAR	35,516	95	29	66
STATE COLLEGES	13,926	97	19	78
NJIT	652	100	100	100
RUTGERS UNIVERSITY[2]	6,893	97	100	100
TOTALS	56,987	96	29	74

[1]From Fall, 1977, HEGIS Reports

[2]University College Enrollment Data For Freshmen Not Available